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Residential valuation systems in Dubai (UAE)

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Residential Valuation Systems in Dubai (UAE)

by

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MBA

A thesis submitted in partial fulfilment of the University's requirement for the degree of Doctor of Philosophy

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Coventry University

In association with the Royal Agricultural University

Dedication

To

My father and mother

To

My brothers

Naif, Hamad, Saleh, Abdullah,

Mohamed, Mohand, and Ahmed

Declaration

I declare that this research is the result of my own work and except where stated and referenced otherwise, all the written work and investigations are my own. This work has not been accepted or submitted for an academic award elsewhere.

ACKNOWLEDGEMENTS

During the course of this research, many people in both the United Kingdom and UAE offered both academic and material support for which I wish to express my sincere gratitude. It is impossible to acknowledge them all in person, but this acknowledgment goes to the few without whom it would have been impossible to complete this study.

I am greatly indebted to my two supervisors, Professor Ali Parsa and Dr Simon Huston, who to me were not only teachers, but also personal mentors, to whom I could always turn in times of need. I appreciate their invaluable knowledge, constructive criticism, and continuous support.

My sincere thanks goes to the very many people in various public and private sector departments and companies in the UAE and Dubai who have helped me. I would thank especially those from the Dubai Land Department, including His Excellency Sultan Butti bin Mejren, Director General of Dubai Land Department; H.E. Marwan Bin Ghalita, Engineer and CEO of the Real Estate Regulatory Authority (RERA); the Head of the Technical Department Mohamad Khodr Al-Dah. Appraisal Department, in particular Shaik Jumah Almaktoum , Buti Hasher bin Dalmog **,** Hamdan Abdulmonam; and from the HR Department Hamda Al-Marri and Ammar A. Alhammadi at the Dubai Land Department. I am also grateful to several members of various international firms and banks. In particular, I would like to thank Noor Bank's Head of Distribution, Ali Moosa; Marwa Al Falasi at CBI; and Amit Singh from Abu Dhabi Commercial Bank. Dubai Municipality was also very helpful, particularly Husain Lootah , Marwan Almohammed; Mohammad Al Mushroom, Director of the Projects Department. I also extend my thanks to the public, semi-government and private sector professionals who participated in the interviews and focus group.

Finally, my unreserved gratitude goes to my family, to whom I dedicate this thesis: my father who is and always will be my role model and who offered his continuous financial and moral support throughout the course of this study; also to my mother, whose inspiration, patience and enthusiasm made me able to complete this thesis; and my brothers who encouraged me. Last but not least, I would like to thank several business partners, including Eng. Mohammad Zayed and Eng. Khaled Saleh, and some great family friends, Hareb Eisa, Ahmad Rajab Baroun, and Abul- Rashid Abdi.

As any other studies of this nature; all the responsibility for errors and misinterpretation is with the author.

Abstract

Over the past thirty years, Dubai has emerged from the UAE desert to become a global metropolis. Its rapid transformation has not been without challenges. Its volatile residential property arena evolved from immature roots into an emerging market bolstered by significant international investment. However, to become truly mature, this market needs to address policy, property, planning and residential valuation concerns. This thesis uses a draft framework or toolkit to systematically investigate issues related to the residential valuation system in Dubai. The explanatory framework integrates elements from evolutionary economics, institutional theory and systems theory to identify five key dimensions for a robust valuation system: output, information, capabilities, trust and standards. These dimensions were assessed via exploratory, operational and reflexive phases. Desktop explorations were supported by embedded research at the Dubai Land Department and among various valuation stakeholders. After site visits to key development projects and statistical analyses of sales transactions, the researcher interviewed senior stakeholders in the public, private and government-related sectors. Subsequently, the interviews were supported by a focus group meeting with key valuation system decision makers.

The study highlights several deficiencies in the current system. Most critical is the inadequate dissemination of reliable property and planning information. Second, many valuers are not independent, or seem unaware of their fiduciary duties, or whilst the dissemination and implementation of international valuation standards would help, there remains a critical shortage of professional valuers with the metacognition expertise to value complex projects. However, the thesis was unable to find a 'valuation system blueprint'. Rather it recognises the need for ongoing dialogue, adaptation and continuous policy learning.

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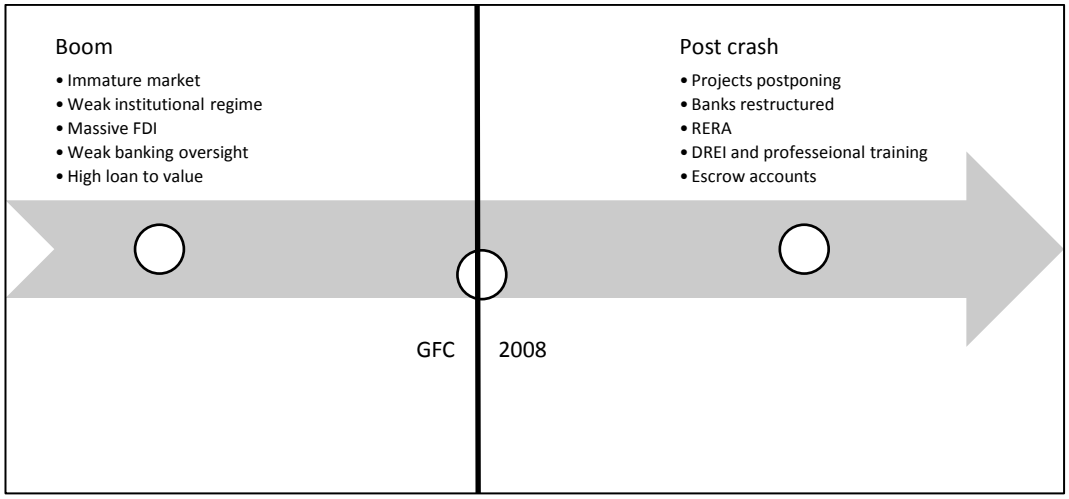
Abbreviations

DIFC	Dubai International Financial Centre	HDM	Hypothetical development Methods
DLD	Dubai Land Department	IVSC	International Valuation Standards Committee
DM	Dubai Municipality	MLV	Mortgage Lending Value
DP	Dubai Properties	MV	Market Value
DREI	Dubai Real Estate Institute	NK	Nakheel Properties
DVS	District Valuation services	OVA	Office Valuation Agency
EM	Emaar Properties	PropTech	Property technology, including Geographic Information Systems (GIS)
FRS	Financial Reporting Standards	RERA	Real Estate Regulatory Authority
GFC	Global Financial Crisis	RICS	Royal Institute of Chartered Surveyors
GRE	Government Related Entities	RVS	Residential Valuation System
GT	Grounded Theory	UAE RVS	United Arab Emirates Residential Valuation System

Chapter 1: Introduction

1.1 Context

Since the 1970s, fuelled by oil, migration and investment, the United Arab Emirates (UAE) has developed rapidly, despite regional instability in neighbouring states. Some consider the UAE an exemplary model for similar Middle Eastern states, while others such as Davidson (2013) are critical of its development strategy. A balanced perspective notes UAE's impressive achievements while acknowledging some concerns. Dubai's housing market is the best known in the Middle East, but values have fluctuated widely. As illustrated in Fig. 1.1, two distinct periods are obvious: pre and post the Global Financial Crisis (GFC). Before the crisis, the immature market was characterised by weak institutions, fantasy projects involving land reclamation, credit imbalances and massive foreign investment (Obstfeld and Rogoff 2009; Shiller 2012). Many investors came from politically unstable countries and looked for a regional safe haven without much due diligence. After the price collapse, Dubai was left with a debt of $109 billion (Lackmann, 2014).



1.1: PRE AND POST-CRASH: THE EVOLUTION OF DUBAI PROPERTY MARKETS

The market was stabilised by postponing many real estate projects, restructuring banks and tightening governance. New institutions like the Real Estate Regulatory Authority (RERA) and the Dubai Real Estate Institute (DREI) were established and escrow accounts became mandatory for developers. However, as the Emirates economy recovered, the same issues of planning uncertainty, unstable prices and fanciful developments re-emerged (ibid. 2014). In short, over the past decade, growth in UAE property markets has been on an unsustainable rollercoaster. As an example of price fluctuations, consider the iconic Burj Khalifa. In 2005, two-bedroom apartments in the world's tallest building sold for $762 per square foot but, three years later - at the height of the boom in early 2008, values had risen fivefold to $3,811 per square foot. By 2009, prices fell back down to around $800. Overall, during the 2009 property collapse, residential prices in Dubai fell by around 50% (Obstfeld and Rogoff 2009). Property sales representatives and speculators fled so that by 2010, instead of its customary 1,000 exhibitors, only 200 presented at Cityscape (ibid. 2010). Afterwards, UAE residential property prices have bounced back, but with low oil prices and regional insecurity, the long-term sustainability of any rebound remains uncertain.

One possible property price destabiliser in the trading hub is the openness of the market, which makes the Emirates vulnerable to exogenous shocks that may alter public opinion or fundamentals. Abu Dhabi is a major oil exporter and in recent

times, the price of oil has fluctuated widely (Mohanty *et al.* 2011). Other issues for investigation include unreliable data or weak valuation systems. Although commercial providers like *Reidin.com* and international real estate agencies publish price data about the UAE market and its data, many local buyers seem to rely on opinions, untrustworthy data or unreliable web or social media reports, which can distort markets and cause inflation. In any event, with the potential for global capital flight, concerns persist around the long run sustainability of such a property market system. The Emirates real estate market is still rapidly developing, but the 2008-2009 property bubble nevertheless raised concerns about the maturity of its real estate markets and reliability of its valuation system. Poorly functioning real estate markets have both short-term and long-term consequences. In the short-term, they are characterised by mispricing, volatility, and speculation both overseas and domestic.

The long-term environmental impacts of an economy over-reliant on real estate with a weak property regime include resource depletion, congestion, air pollution and health problems, and therefore the complex interplay of policy, urban planning and real estate institutions needs informed management (Bromley 1992; Healey 2006; OECD 2016; Owens and Cowell 2011; Al-Hader *et al.* 2009). One mechanism intended to improve the overall property regime in Dubai is a fine-tuned Residential Valuation System (RVS) which, together with a robust planning framework, helps to limit speculative excess and to restrict ill-considered projects.

Hence, because of its exposure to international investors, the valuation system in the Middle Eastern trading hub requires further investigation. This research could help reduce property volatility, develop Emirati property markets and facilitate sustainable urban development. In short, property markets in the Emirates provide an interesting research field with potentially significant industrial, social and academic implications. One of the most fruitful markets to investigate is the Emirate of Dubai itself, which is the most exposed to international investment. This thesis has therefore identified the residential valuation system phenomenon, since its origins in 2008, as a subject worthy of investigation.

Any investigation into ‘valuation’ needs to settle on an agreed definition for that controversial term of ‘value’ (RICS 2017). First, it is necessary to distinguish commercial instrumental values from aesthetic, cultural or religious values (Owens and Cowell 2011). For example, in biology certain animals or plant species can have vital ecological functions but no commercial value. The art market is the reverse, in that works by highly valued artists generally attract high prices despite being of little practical use (Nebel and Wright 1993). Unlike ecological values, artistic or commercial values are economic and social notions with markets implications linked to scarcity or utility. Religious or ethical values, on the other hand, are generally independent of market ‘exchange’ or ‘use’ in a conventional political economy (Spash 2000).

In the scope of commercial values and pricing, it is necessary to distinguish between offer price (list price), ‘realised price’ or observed exchange price in an open market and ‘value’ or an estimate of the price that would be achieved if the property were to be sold at arm’s length between knowledgeable and willing parties (RICS 2017). Realised price is ‘exchange value’ but not ‘value in use’ (French 2003). Other valuation complications include the distinction between Market Value (MV) and investment value (IV) (Rees and Hayward 2002; Armatys *et al.* 2009). Different institutions produce different definitions which evolve. For the IVSC (2013), MV is, 'The estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm's length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion.' Once definitions are clear, values can be estimated using various approaches: comparison in active markets, capitalisation of rental or operational income streams (income or profits methods) and depreciated or hypothetical replacement cost (Rees and Hayward 2002).

Besides alternate definitions of value, property has distinctive features which need some consideration before designing a valuation system. Firstly, for most

countries, real property (land and buildings) is the most significant store of value, but it also has international and domestic spatial and social consequences (Dallas, 2016). In effect, property stocks and flows influence the mode of economic and social development. Second, property is a complex dual good with investment and consumption aspects and geographical spatial externalities, (Shapiro *et al.* 1943; Mcdonald and Mcmillen, 2013). Third, and most importantly for any investigation into property valuation systems, is the fact that all property markets are imperfect due to asymmetric information, heterogeneity, illiquidity, complexity and interaction with government policy (Maclennan et al. 1999). Finally, in these imperfect property markets, regional conditions and local markets vary substantially. Important factors contributing to regional instability in the Middle East are the volatile political situation. War and instability are a push factor for significant migration and illegal or legal capital outflows. Surplus oil revenues and the associated credit magnify the exposure of the UAE residential real estate system to capital flows (Davidson 2016).

To avoid damaging booms and busts, to prevent waste and evade poor-planning outcomes, it is essential to have robust planning and valuation systems (Adams and Tiesdell 2013). Investigating the current state of Dubai Residential Valuation System (RVS), therefore, is a vital step before any system re-examination. To this end, this research analyses those factors that, despite certain economic and societal advantages, could hinder the functioning of the UAE valuation system. A good valuation system facilitates the flow of quality information and helps stabilise property markets. It requires legal and professional frameworks to regulate the valuation processes. Possible constituents include clear standards, robust institutions and delegated oversight, qualified and ethical valuers, professional planners, transparency and accurate data (RICS 2017).

Currently, some UAE brokers complain that the valuation system is imperfect. Stakeholders agree that the system needs investigation. Information deficiency is a theme which Jerry Oates, Asteco's Abu Dhabi office general manager, stressed when he declared recently that, 'The market is thirsty for data. The lack of

official data makes everyone more reliant on rumours and people's opinions' (*National* 2014). Ahmed Kayham, another real estate chief executive, reported that, 'if UAE publishes enough data points, the market will achieve a clear picture of what is going on' (ibid. 2014).

This brief consideration of Emirati valuation systems has distinguished between different interpretations of value across different commercial valuation bases. We have noted the highly volatile UAE property markets, characterised by exposure to changes on capital markets, oil price fluctuations and on top of all that, inadequate information systems. Having identified the problem and briefly outlined some of its implications, the thesis will now clarify the motivation and aims of this UAE-RVS research project.

1.2 Motivation

One motivation for the research was the recent decree by Dubai Crown Prince, Sheikh Hamdan Bin Mohammed who stated that valuation is a proper profession for Emiratis who need qualifications and require designation by Dubai Land Department (see Appendix 1.1). The second motivation is based on extensive experience by the researcher, operating as a developer and property owner in the Emirates. The author is motivated by a desire to improve the current residential valuation system (RVS) in the UAE to reduce risk exposure, encourage rational investment and stabilise the UAE market. The study seeks a practical and cost-effective residential valuation system appropriate for the UAE. The search for and the dissemination of the RVS enhances property knowledge and professionalism for various stakeholders (academics, financiers, planners, officials and practitioners). It follows that a logical starting point for this research is to investigate existing residential valuation systems and their implications on the property market. This will require a good understanding of all contributing variables. Property valuation is influenced by a range of different factors but the main research focus is on specific factors relevant to the UAE in general and Dubai specifically. In addition, the research investigates whether mature property markets provide useful guidance. The study enhances the knowledge and understanding of gaps in current property valuation, administration and management systems in the UAE.

Given the financial consequences of instability and the degree of openness in the UAE's economy, the rational and sustainable management of the UAE property valuation system is of national significance. An appropriate valuation system could help enhance the economic potential of the country, improve resilience, health and quality of life.

1.3 Research aims and research objectives

Aim

The aim of this research is to examine the current United Arab Emirates (UAE) property market situation, with a particular focus on Dubai, and investigate whether the Residential Valuation System is fit for purpose and consider appropriate amendments. En route to achieving its overall aim, the thesis has a number of key research objectives:

Objectives

I. To articulate the UAE valuation problem

II. To harness the knowledge base and best practice for a valuation toolkit

III. To analyse the UAE backdrop and Dubai housing markets to reveal valuation issues

IV. To scrutinise the operation of the Dubai Residential Valuation System

V. To validate findings and reflect on institutional issues

The research must first diagnose the state of the current system before it can prescribe and validate relevant valuation system treatments. Sources of diagnostic data should be relevant (appropriate to the context), complete (covering all major issues), timely (not out of date) and reliable (valid).

1.4 Research questions

In order to achieve the overall research aim of establishing whether or not the current Dubai residential valuation system is appropriate, the following questions are critical for this research to address.

Main research question

What is an appropriate residential valuation system for Dubai?

Subsidiary questions

- **I.** What are the key features for a robust residential property valuation system?
- **II.** How does the Dubai housing markets context (institutions, key stakeholders, market structure and dynamics) influence values?
- **III.** Is there a valuation problem?
- **IV.** What are the main issues with the current RVS practice?
- **V.** What are the recommendations, policy advice, and research limitations?

1.5 Research methodology

Research methodology is a structured approach to collect evidence to support findings, but the approach taken depends upon assumptions about how the world works, what is important and how best to understand it. The most common world views are the scientific or constructivist. The scientific approach is deductive or based on theory, while the constructivist approach is inductive or bottom-up rather than 'top-down' (deductive). It observes phenomena and collects data without imposing a previous theory (Creswell 2003; Gray 2013). However, this research blended aspects of both, and used a pragmatic sequential mixed methodology with explanatory and inductive elements. The literature generated a draft framework to structure quantitative and qualitative investigations into actual market conditions

and valuation practices. In short, the research adopted a phased approach which employed a combination of both quantitative and qualitative methods for a complete answer to the valuation phenomena. Chapter Four provides a detailed account of this research design, methodologies and data sources. To meet its five objectives and answer its research questions, the research was conducted in four phases, as detailed below.

1.5.1 Phase I: Conceptual

The first phase of the research identified the valuation issue in its UAE context and scoped the research problem. The second chapter reviewed the property literature looking for issues relevant to the design of a residential valuation system framework. The third chapter investigated systems and global valuation practices to discover key features to improve the draft framework and facilitate the systematic evaluation of the current UAE system. Overall then, for the Conceptual Phase, the property literature and valuation standards provided the basis of knowledge to build a framework to comprehensively understand the system.

1.5.2 Phase II Exploratory statistical phase

The Exploratory Phase is covered in Chapter 5 of the thesis, in which web-based research is conducted about the Emirates context and economy and also five case study locations are visited in Dubai. Later, the chapter examines residential property transactions in these same five Dubai locales to help clarify market structure and dynamics and to discover if there was any discrepancy between predicted prices and reported market values (‘MV’). To determine the extent of the MV problem, 100,000 property transactions (2007-2014) were analysed, looking for price drivers and MV accuracy (system output issue). Quantitative analysis is conducted on secondary price data to establish there is actually a valuation accuracy problem.

1.5.3 Phase III Operational phase

This investigation into Dubai Land Department valuation practices comprises four stages. The first stage involved embedded research mainly at the Dubai Land Department (DLD), using aspects of Grounded Theory (Glaser et al. 1967). Other government departments, related entities and private institutions were also visited to collect valuable supplementary qualitative data. Observations were made and memos taken about administrative and valuation processes, technologies and professional qualifications. Generally, visits began with preliminary discussions with key stakeholders or valuation gatekeepers who explained the market, issues, the institution and usually allowed access to archival documents to understand procedures. The embedded research also involved observation of Dubai Land Department (DLD) meetings and procedures and audit of record keeping by tracing sample of transactions and to check implementation of standards (Appendix 1.2 – DLD meeting invitations). The second stage of operational research involved semi-structured interviews with stakeholders and experts, exploring questions linked to draft RVS explanatory framework to investigate institutional capabilities (qualifications, technologies, practices), valuation standards dissemination and trust between various stakeholders (banks, developers, planning authorities and real estate agents). These key stakeholders clarified the major concerns with the current valuation system; centred on institutional capabilities, trust in the system and its outputs and awareness of valuation standards. The main limitation of the qualitative interviews was the lack of impartiality and uncertain validity of the respondents' views.

1.5.4 Phase IV Reflective

In the final phase of the research, the initial findings were reviewed and discussed by a focus group (panel of experts/practitioners and academics). The high-profile group validated the preliminary findings but raised matters of valuation system concern. Discussion centred on the institutional or operational difficulties that hindered the implementation of international valuation practices.

To summarise this brief overview of the research methodology, the study employed mixed methods involving a range of data sources and methodologies in the search for a complete answer to the Dubai-RVS problem. Diverse sources of information were used to increase confidence in the findings. The research used web sources for its desktop analytical review of UAE and Dubai. It also consulted a wide range of academic literature to clarify definitions, valuation standards and practices. Primary qualitative data came from site visits but quantitative property market transaction data was used for statistical analyses. The embedded research involved observations of meetings and consultation of archives. Operational research also involved expert interviews with local valuation practitioners. Finally, a focus group meeting was held to validate UAE-RVS recommendations.

1.6 Research ethics

The research did not involve vulnerable groups or dangerous experiments and complied with postgraduate research ethical guidelines (Appendix 1.3 RAU Ethical Approval). The main risks identified involved avoiding conflicts of interest, maintaining an academic rather than a commercial approach, ensuring respondent anonymity and protecting data. Fig. 1.2 illustrates the main factors ensuring good ethical research practice.

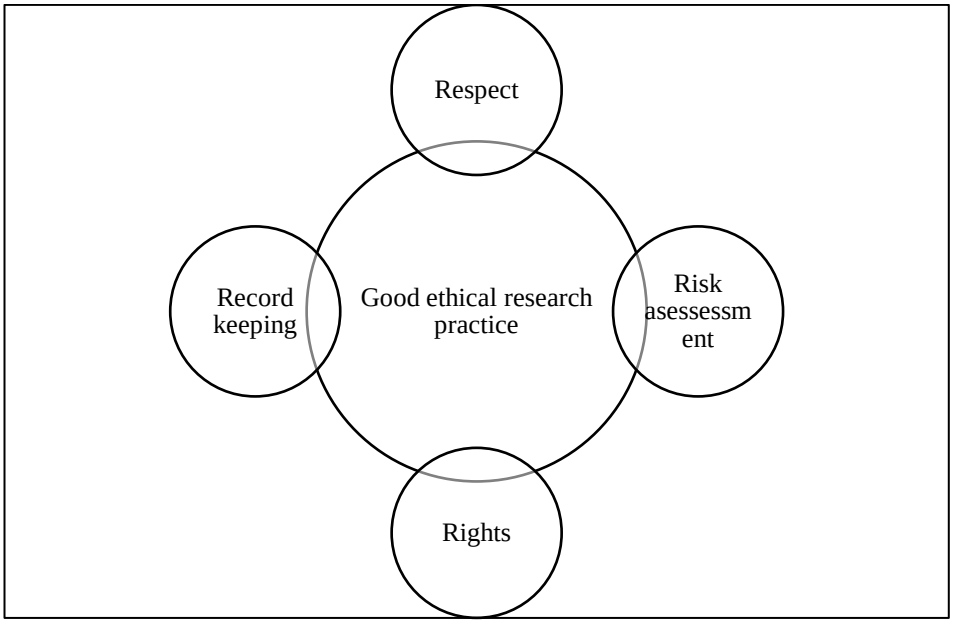


FIGURE 1. 2 GOOD ETHICS RESEARCH PRACTICE (SOURCE: RAU LR0422010, ADAPTED)

Practical ethical measures were taken to secure data and anonymise respondents. The first was to stress to respondents that participation was voluntary. Before the interviews began, the respondents were reminded of the measures to ensure anonymity. Computer data was access protected via password with up-to-date virus protection until securely deleted. All hardcopy interview transcripts were destroyed after the material had been analysed. For the focus group, ethical measures included a safe academic institute for discussions and the fact that the chairman stressed that he would respect all focus group attendees opinions. All responses included in the thesis were anonymised and firm were only mentioned as examples with others to obscure the actual source.

1.7 Valuation issues for consideration

Aside from the methodological debate, the study raised several important research issues. Four are considered here because they had a significant impact on the study: the theoretical basis of the research, the unit of analysis, value creation and the study location.

1.7.1 The theoretical construct

The theoretical basis for the research combines the Austrian evolutionary economic approach which stresses the importance of information asymmetry (Menger 1871; Kirzner 1992) combined with an institutional framework for the analysis of the relationship between valuation results, local vs. global practices and the organisations involved (Healey 2016). The UAE is a country undergoing major urban transformation, and local institutions engage with this evolution according to resources, organisation norms, habits and culture within the broader economic and social structure (Oliver 1997). This thesis compares Dubai's valuation institutions with those of the UK and international standards.

1.7. 2 Unit of analysis

The unit of analysis is the residential valuation system at the sub-national scale (the Emirate of Dubai) which is part of the development system which interacts with the land administrative system, and the legal and financial systems. Fig 3.2. in Chapter 3, identifies the RVS within the development system and its stakeholders. The focus of the study is on residential dwellings and thus specifically excludes commercial property (industrial, office, retail, tourism or public sectors). This narrow scope allows for in-depth and high quality research within the limited PhD timescale. Within the residential market, the investigation's main focus is on resale properties, although the impact of complex projects is also considered. Valuation systems provide services to four broad categories of stakeholders in the government or government-related, international firms and, finally, private entities.

Various tiers of government regulate the operation of residential property markets and implement laws for the long-term public good. In this study, two key government institutions were investigated: Dubai Land Department (and its various departments) and Dubai Municipality. Quasi-government entities (quangos) were also considered, including nationalised developers. While developers usually range from large highly-capitalised and high profile property entities undertaking glamorous projects, to small local operations, in Dubai the main developers are

large semi-government organisations involved in massive construction projects, such as Nakheel, Emaar and Dubai Properties. Other quasi-government players were nationalised banks, such as the Abu Dhabi National or Abu Dhabi Commercial Banks, and Fujairah National Bank. Financiers, whether quasi-government or international, assess projects and balance potential returns and other benefits against project risks. Financiers are mainly interested in a rational Mortgage Lending Value (MLV) and should be aware of this different purpose and basis of valuation to assist their investment decision making process and to make sound judgements.

Other banks or financial institutions were international firms like HSBC but the main group of international organisations included real estate brokers like JLL and Cushman Wakefield Knight Frank who market, buy, sell and lease property. The final group of RVS players were private individuals, whether investors or local residents, who invest any spare capital in existing or new property. Local residents tend to be either owner-occupiers or renters. Property managers who secure and manage buildings were not investigated (see Chapter 3).

To document an accurate picture of the Emirates valuation systems and for a complete answer to the research question, stakeholders were engaged by a range of methods in the sequential mixed design, including embedded discussions, face to face semi-structured interviews and, during the reflexive phase, in a focus group meeting.

1.7.3 Value creation

One issue which any valuation system faces is constant urban transformation, particularly in fast changing global cities like Dubai. Value creation, value destruction and unbalanced capital flows (Harvey 1985) are issues which require detailed, up-to-date information. Value creation is a sequence of steps which transforms land use and increases value. Behind all the value creation process is the rule of law and land ownership rights to attract investment. Usually in the

process, government plays a critical initial role in distributing responsibilities between different institutions. In Dubai over the years, marginal desert land (Kwhaneej) or downmarket neighbourhoods (Satwa) have changed and become prime real estate. Fig. 1.2 below illustrates the value creation Process (Al Dah 2016). It begins with the Dubai government who allocate the land among the Government Related Entitles (GREs) who present their ideas to His Highness. Subsequently, in this value creation process, government institutions become involved. Dubai Municipality departments like Urban Planning, Building Permits and Investment Attraction, Construction Approval all play important roles. Other significant government institutions included in the investigation were the Dubai Land Department (Registry Department, Pre-approval, Mega Project Planning, and the Real Estate Regulatory Agency – RERA). Once the government administrative steps are complete, GRE developers consider how to fund projects, either internally or via international finance. As Fig. 1.2. illustrates, developers construct and promote projects in conjunction with international firms who market schemes to private investors and provide related valuation and financial services.

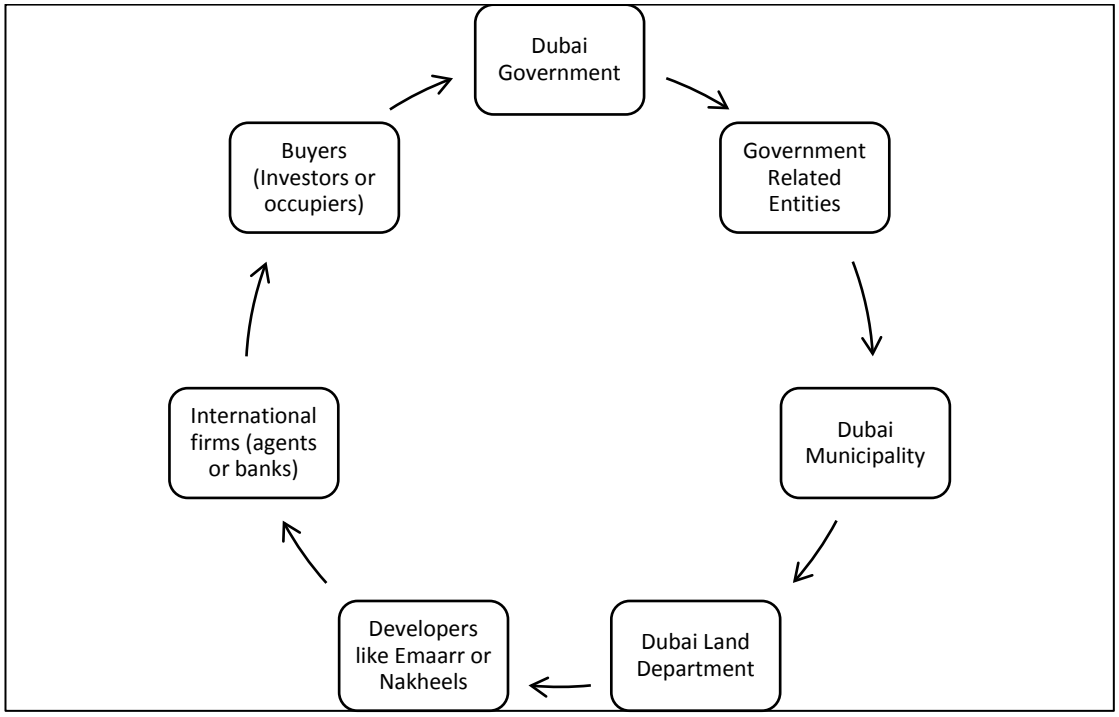


FIGURE 1.3: VALUATION CREATION STAKEHOLDERS

1.7.4 Study location

The scope of the thesis is Dubai property markets during the period from 2007 to 2014, although some secondary evidence is more generally related to the entire Emirates. During its operational phase, the research involved interviews with a diverse and representative range of stakeholders in Dubai. During the Reflective Phase, the FGM was in Dubai and included active members of the Dubai valuation system, who were identified by gatekeepers from key Dubai intuitions to validate findings, to consider national policies and organisation norms and practices as well as considering how urban complexity and major projects influence the RVS.

FIGURE 1.4: UNITED ARAB EMIRATES MAP (SOURCE GOOGLE 2016)

Some key facts relating to UAE include its size: 83,600 km2 but, as Fig 1.3 illustrates, Dubai (4,160km sq.) is much smaller than Abu Dhabi (CIA 2016). In 2015, Dubai's population was around 2.415 million, of which immigrants make up almost 85% (Iranian 23%, South Asian 50%) and maintain a population growth rate of about 2.47%. Economically, Abu Dhabi's massive hydrocarbon reserves make it the dominant partner in the Federation. In Dubai, property, logistics, tourism and business services provide the main source of income. Geographically, the UAE is a flat, unfruitful coastal plain merging into rolling sand dunes of massive desert and mountains in east. Environmental issues include a lack of natural freshwater although this is compensated by desalination plants. However, desertification, air and water pollution remain concerns (UN 2015, CIA 2016). Within the Emirates, the study location focus was on the Emirate of Dubai within which five case study locations were selected: Burj Khalifa, Dubai Marina, 3rd Thanaya, 5th Thanaya , 1st Warsan (Chapter 5).

1.8 Overall research structure and methodology

The thesis is structured into nine chapters as outlined Figure 1.4.

Chapter One: Introduction – outlines the UAE and Dubai context and property market issues (background to the research). It identifies the main research problem, the research aims and objectives, research questions and outlines the methodology. Issues for consideration were also considered, contributions outlined and the overall thesis structure was illustrated.

Chapter Two: Property and Markets reviews the main property literature and valuation knowledge base, seeking to identify key factors which influence property markets and key features for a robust valuation system

Chapter Three: *Valuation standards* identifies the main valuation standards, drawing upon international practice to incorporate them into the draft valuation framework.

Chapter Four: Research methodology – establishes the theoretical foundations, designs the overall research, outlines the methods and details the data sources and collections methods to provide a convincing explanation and to identify treatments.

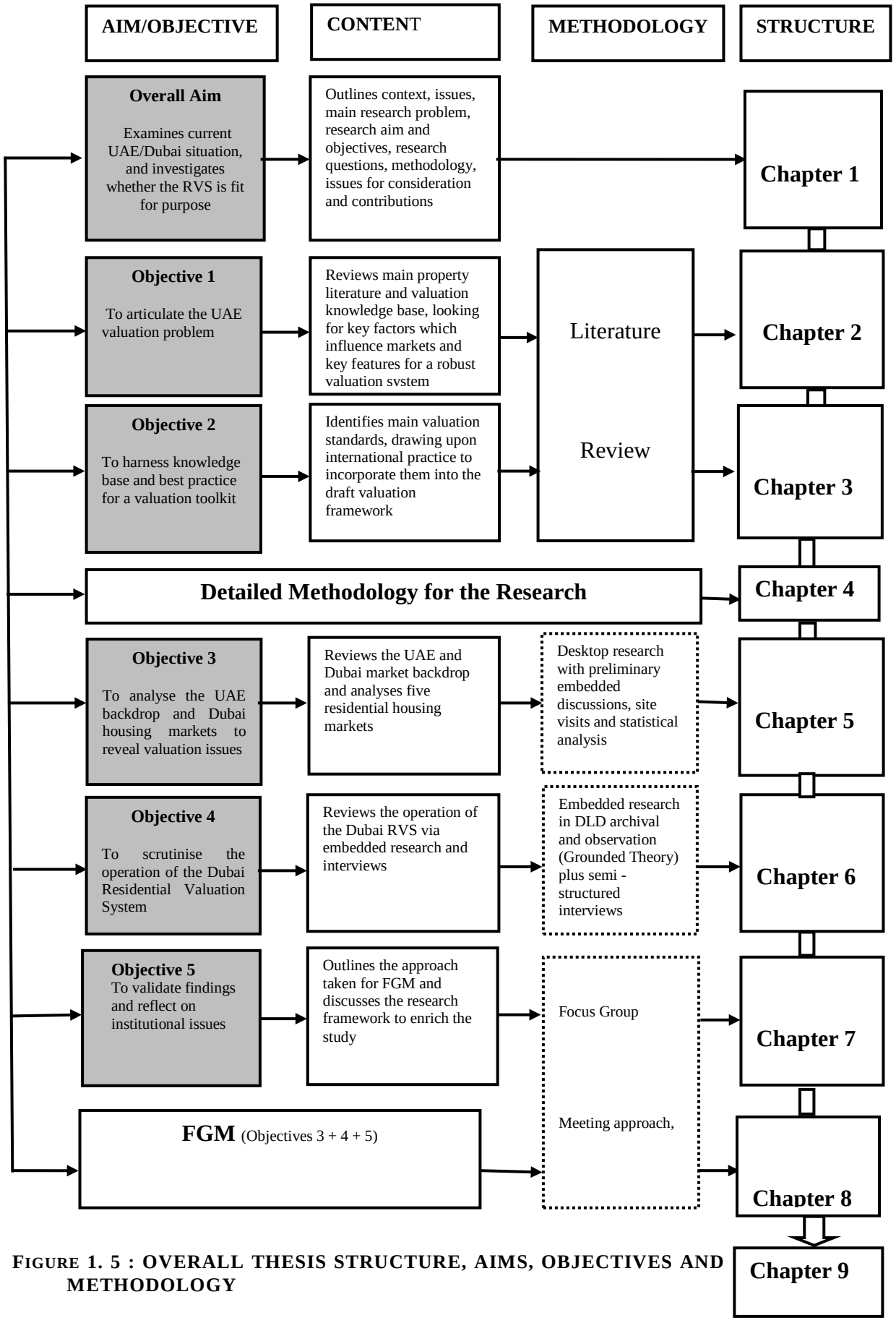


FIGURE 1. 5 : OVERALL THESIS STRUCTURE, AIMS, OBJECTIVES AND METHODOLOGY

Chapter Five: UAE and Dubai Market Analysis reviews the UAE and Dubai market backdrop and analyses five residential housing markets to identify market structure (sub markets) and dynamics (drivers/constraints) and looks for valuation discrepancies.

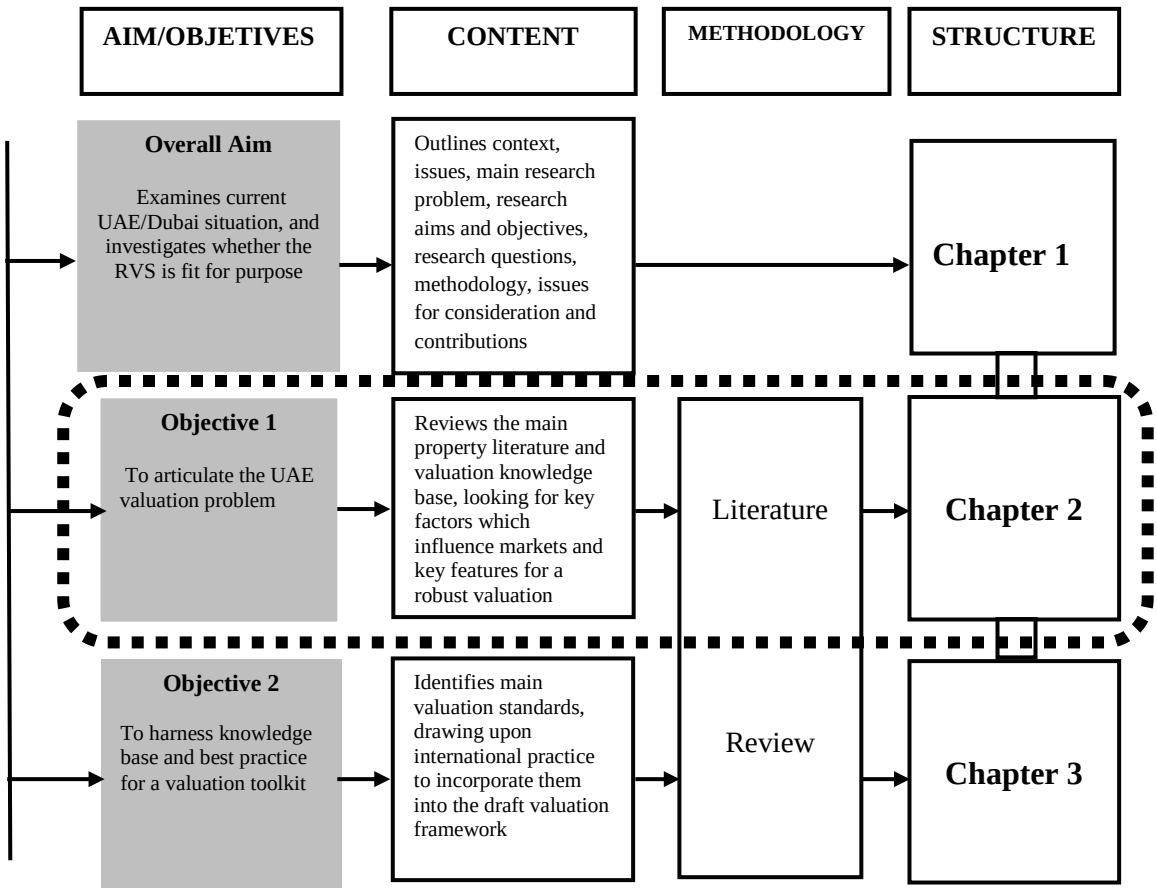
Chapter Six: Dubai valuation practice: embedded research and interviews systematically reviews the operation of the Dubai Residential Valuation System via embedded research and by interviewing a range of stakeholders.

Chapter Seven: Valuation challenges and key stakeholders perspective – outlines the approach taken for the focus group and discusses the research framework to enrich the study, looking for a greater understanding of institutional issues to make credible recommendations

Chapter Eight: Focus Group Meeting analysis uses different types of analysis to validate research findings and reflects on institutional issues and best practice to make suitable recommendations to improve the system.

Chapter Nine: Conclusion highlights the thesis's principle findings and key conclusions as well as the main knowledge, social, commercial and environmental contributions, research limitations and opportunities for future research.

Chapter 2: Property and markets



2.1 Introduction

The First Chapter of the thesis put the valuation system problem into perspective and identified the main research question, research objectives and the pathway for providing a comprehensive answer. This chapter explores the real estate backdrop and literature to identify aspects of real estate and property markets which could help generate a draft explanatory framework to structure the investigation into Dubai residential valuation system. The chapter identifies the main property, land and property market issues in a mixed capitalist and Islamic regime and answers the second research question regarding aspects of real estate which influences valuation system design. The general real estate literature review covers philosophy, politics, customary land rights, modern property market and Islamic tradition.

Real property or real estate is immovable unlike personal property (such as computers or cars) or intangible property (such as copyrights, brands or commercial scientific knowledge). Real property is land, anything attached to it and improvements to land (Stroud 2013). The Oxford English Dictionary (2012) provides several definitions of property: 'a building or buildings and the land belonging to it or them' or 'the right to the possession, use, or disposal of something; ownership: rights of property'. Real property is spatial but land parcels vary in size, situation and location. The terms 'Land Parcel' or 'Property' are interchangeable and record an interest in land in terms of rights, responsibilities and restrictions (Jowsey 2011). Residential buildings vary enormously in terms of function, age, size, design, construction methods and risks (RICS 2011). Globally, a shack in the Brazilian slums or *favelas* is very different to a New York apartment (Guy and Hanneberry 2008). In short, property and locations are very diverse or heterogeneous. Sites, land parcels, and the geography of places vary considerably because of different landscapes, histories, geology, social structures, political systems and economic dynamics (Meen *et al*. 2016). Consequently, property information systems must capture significant data on context, structures, legal interests, land use and planning.

2.2 Real estate context

To design a well-functioning valuation system, it is important to understand that real estate has direct spatial and social impacts but is shaped by changing government policies and is linked to an unstable financial system (Jowsey 2011; Aalbers 2017; Bowie 2017). In recent decades, many city governments have abandoned administration in the 'public interest' and instead have focused on real estate investment (Healey 1990; Tallon 2013). Often, the result was speculative real estate bubbles (Harvey 2010; Shiller 2015).

This research first considers the philosophical aspects of residential property, its different physical and legal forms or socio-economic functions in different historical periods or geographical settings. It could be that, in Arabia, the social functions of property (such as its link with status for social gatherings) are different (Williams, 2007) compared to Europe or Asia, and this could affect valuation system design.

2.2.1 Real estate and philosophy

For thousands of years, people have fought over land and property for survival, status, identity and community (Morris 2005). Today, notable conflict zones are in Palestine and Africa (Campbell et al. 2000). In antiquity, according to Aristotle (Long, 1997), ownership provided security and wellbeing. In Ancient Greece, property ownership was a condition of citizenship. (*ibid*, 1997). Table 2.1 illustrates Aristotle's view on ownership.

TABLE 2.1 ARISTOTLE PROPERTY OWNERSHIP MODEL. SOURCE: AUTHOR (2016), ADAPTED FROM COHEN, M. R. "PROPERTY AND SOVEREIGNTY." *CORNELL LAW REVIEW* 13, NO. 1 (1927): 8-30. BECKER, LAWRENCE C. *PROPERTY RIGHTS (ROUTLEDGE REVIVALS): PHILOSOPHIC FOUNDATIONS*. ROUTLEDGE, 2014. ELLICKSON, ROBERT C. 'UNPACKING THE HOUSEHOLD: INFORMAL PROPERTY RIGHTS AROUND THE HEARTH.' *THE YALE LAW JOURNAL* 116, NO. 2 (2006): 226-328; ARISTOTLE *POLITICS CIRCA 325BC*.

Ownership	Usage	Aristotle's views and contemporary examples
Individual	Individual	Most dangerous type of ownership as it excludes many such as a private flat in modern western society
Common	Individual	Not acceptable. This model is a socialist concept where social housing or facilities like swimming pools are owned by the state, local government or non-profit housing associations
Common	Common	Not practical but actually seen with common land in England owned by the community
Individual	Common	Possible and equally acceptable. In England this would include an estate where people can access at certain times and with restrictions.

Aristotle (384-322 BCE) believed in privately held property, owned by individuals or legal entities, but also advocated for common usage. Morally, Aristotle rejected excessive wealth generation received from accumulation. For him, interest payments were not a natural way to generate income. He also worried that if property ownership conditions for participation in government were set too high then government would be run by an elite who would not consider the interests of ordinary citizens (Aristotle (1981). To counter these dangers, Aristotle believed that some land use should be held in common. Actually, access is one of the key aspects of land rights which governments need to regulate (Ostrom and Hess 2007). Even with open access property such as open ocean fisheries, supposedly neither owned nor controlled by anyone, international agreements among countries regulate access. In other cases, governments actually own and control state property, such as schools and hospitals to control access.

With common property -owned by a collection of individuals, such as a gated community like Murdif in Dubai, access is controlled by joint owners.

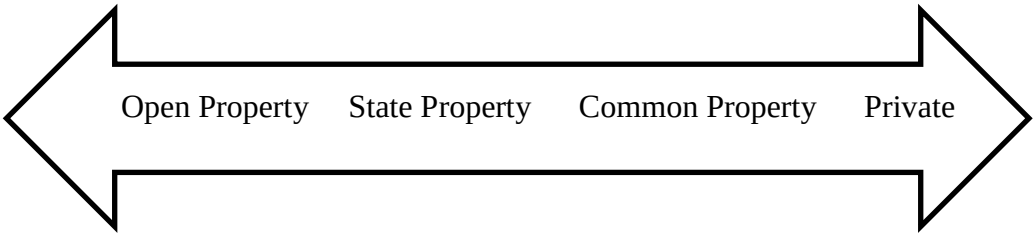


FIGURE 2.1 SPECTRUM OF PROPERTY RIGHTS (FAULHABER, G. R., & FARBER, D. J. (2003). SPECTRUM MANAGEMENT: PROPERTY RIGHTS, MARKETS, AND THE COMMONS. RETHINKING RIGHTS AND REGULATIONS: INSTITUTIONAL RESPONSES TO NEW COMMUNICATION TECHNOLOGIES, 193-2006.)

2.2.2 Real estate and society

Oded Galor (2006) and other scholars support Aristotle's idea that excessive inequality in land ownership is not healthy for society. However, libertarians like John Locke (1689) or Hayek (1944) disagree with any interference in property rights and in fact consider that the main responsibility of government is to protect these rights. However, from a policy perspective, there is no reason why rights of possession and exclusion should take priority over rights to assure basic needs of all citizens (Hausman et al. 2017). Even Adam Smith (1776) considered property an unproductive asset compared to agricultural land. For Smith, the government concern to protect property really protects the wealthy. Aside from politics, another major influence on real estate is the social and cultural backdrop of locales. In rich neighbourhoods properties tend to be expensive (Reed and Sims 2014). A robust valuation system should capture data on economic conditions and the social backdrop.

Anthropology shows that the link between property and social stratification goes back to ancient Egypt (Park 1992). Culture and social interaction are important aspects of human experience mediated through diverse built environments (Healey and Barrett 1990). Well-designed walkable locations are more marketable than badly designed ones, so any valuation system should capture data on the built form (Adams and Tiesdell 2013).

For Lefebvre (1991) and other progressive authors like Harvey (2010), institutions which serve the interests of the dominant class mediate uneven real estate development (Healey 1997). For Harvey and Jowsey (2004), the social representation of space pushes the working class down but serves the interests of the ruling class. Smith (1979) explains how cultural and social forces drive the redevelopment of run down places via a 'Rent Gap' or a gap between current rents and future ones. Development projects or more gradual renovation involves physical, social and cultural transformation. Unavoidable rent increases drive out the poor. Ideally, the RVS should capture shifts in social structure to enable effective intervention to tweak the system to ensure that it works for the many. However, libertarians, like Hayak (1944) argue against any interference by government with private property rights because private is more efficient than public ownership and motivates titleholders to improve land/property that inflates the value of adjacent properties (Ellickson 1986).

However, *numerus clausus* and other restrictions on property rights (Dorfman 2011) as well as the initial distributions and taxation all have an impact on social outcomes. Externalities also undermine Hayek's argument for non-intervention. Land-use decision making is complicated and its externalities impact on multiple stakeholders who are affected differently by developments. (Haefele 2013).The RVS should help government decide how to regulate and impose tax, charges or fees on land and property for the common good. Another benefit of private ownership is that under Islamic law, owners can donate their land for the common good of the society, known as *Waqf* (Kuran 2001). However, it is criticized that the property rights take priority over human rights which leads to inequalities (McHarg 1999). Tierney (1997) defines private property as "a vital need of the human soul", since any human soul reaches its full potential by self-actualization. Maslow's theory of needs hierarchy (1943) can also be applied here and this theory in turn supports the ideas of John Locke (1980), who stated, 'As much as a man tills, plants, improves, cultivates, and can use the product of, so much is his property'. This definition closely resembles the human motivation theory of A.H. Maslow (1943). In brief, one can conclude from these theories that in a sense, property is necessary for self-actualization as well. Figure 2.2 illustrates how

Maslow's theory of needs could be also applied to property theory. The ultimate goal of any human, based on this theory would be to acquire not just a house, as a shelter for safety and security, but to create a home, where all the personal potential of a creative person is realised.

FIGURE 2.2 HIERARCHY OF CITY NEEDS (SOURCE: GOLDSTEIN 2016)

Pragmatically, if governments are to intervene to facilitate self-actualisation or other social aspirations they need to raise tax revenue, including from property. Property taxation can take many forms, including based on transactions (sales tax), capital gains or from development value uplift or the famous 'unearned increment' first identified by Ebenezer Howard in his famous *Garden Cities of Tomorrow* (1902).

To conclude this discussion of property and society, it is clear that there is significant debate and disagreement about the level of government intervention in property markets that is important for social needs. Notwithstanding, government

plays a critical role in the distribution, access, oversight and regulation of property for the common good. The degree of private sector involvement in housing resource allocation and land distribution remains arguable. Clearly any mature RVS needs to reflect actual ownership distribution and rights.

2.2.3 Property rights

Property rights can be viewed as an attribute of an economic good, having four components or bundles of rights (Daniel and Robinson 2011; Corgel et al., 2001). First is the right to use the asset free of hindrance while enforcing various property rights, but others include the right to earn income from rents or other fees and the right to transfer ownership. Demsetz (1967) argues that an efficient land and property system relies on the notions that everything must have an owner, this ownership is exclusive and is transferable to encourage the better use of land resources. This view of an unavoidable evolution of property rights toward economic efficiency has been challenged in turn by Libecap (1989), and especially by North (1991). Libecap (1989) underlines the complexity of property rights formation. He argues that property rights are formed and enforced by political entities and that property rights reflect the conflicting economic interests and bargaining strength of those affected. That is why today's choices are limited by yesterday's decisions. In this study of the key elements for an appropriate valuation system in Dubai, reference was made to UAE history, political and legal structure, all of which influences property rights (Glenn 2007). When applying some ideas about the transfer of ownership, in Dubai Law, for example, DIFC (Dubai International Financial Centre) guarantees freehold and leasehold title for a term of at least one year to real property within the DIFC for all companies and individuals, including foreign companies and nationals (Vogel, 2007).

Private property is facilitated through the legal system (Stroud 2013). This leads to the conclusion that property is not a natural right but rather is a tool to help build a society. The law defines such rights. The Courts of Law decide and enforce the law. Legally, the UAE does not accept the jurisdiction of the

International Court of Justice (ICJ). Within its borders, it is split between Sharia and Civil sources (Bedawee 2016). For Civil Law matters, except for some limited defensive and international federal, the UAE constitution grants each emirate, including Dubai, a large degree of independence. Dubai has its own legislative body and courts of appeal. (CIA, 2009) Within its territory, jurisdiction is complicated by islands of separate legal autonomy (*ibid.* 2016). For example, the Dubai International Financial Centre (DIFC) operates within a British Common Law system although it is linked to the UAE (Himber *et al.*2009). There are other territorial legal discrepancies with separate jurisdiction in certain areas for free zone and for certain property developments, to which expatriates can obtain legal title (Sarah 2016)

Managing property markets is a complex and multi-dimensional subject. Debate arises over government interventions. Rule of law is important but so too is vision. For sustainability, societies have to protect land from ecological and environmental risks and must effectively manage infrastructure, urbanisation, industrial and agricultural zones prudently, with limits to growth (Owens and Cowell 2011). Other responsibilities in the property area could involve: regulating foreign investment and providing reasonably affordable housing (Whitehead 2007; Tallon 2013; Bowie 2017). However, generally regulatory planning restrictions tend to increase prices unless credit limits or other controls restrict demand (ibid. 2007). Figure 2.3 illustrates the interaction of the various systems influencing property values. In the UAE, land distribution is on the whole seen as fair, with relatively equal distribution amongst the citizens (Al Mashroom 2015).

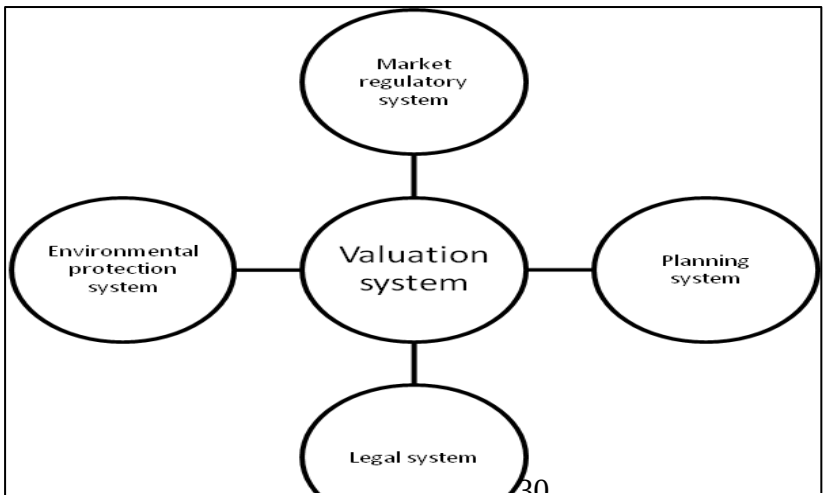


FIGURE 2.3 INTERACTIONS OF RVS WITH OTHER SYSTEMS IN THE ECONOMY

(Source: Author 2014, adapted from Limburg, *et al.* (2002). Complex systems and valuation. *Ecological economics*, *41*(3), 409-42

2.3 Land

An estate in land is an interest in real estate which varies according to the prevailing property regime (Bennett, 1937; Cole 2010; Stroud, 2013). Land includes water, natural resources and deposits such as ores and minerals (Wilkinson 1993). Legally, rights and interests associated with an estate in land can be considered as a 'bundle of rights' because of the potential for different parties having different interests in the same real property. There are two categories of estates in land. The first is freehold which gives transferable (transmission to heirs) and exclusive possession with some limitations, so that Fee Simple Determinable has no conditions while Fee Simple Subject to Conditions includes limits to usage, access or certain fees due to the lord or king. The second type is leasehold estates with rights of possession and use but not ownership. (*ibid.* 2014). A property right restricts access for using a resource. The resource may be owned by an individual (e.g. a farmer), communities (e.g. a village common land), entities (international investors) or government (e.g. social housing). Even if property is owned by an individual, the use is restricted within a set of rules and regulations framed by a government. If it is owned by government, then it is as per approval of parliament (in democratic countries) or by the leadership (in case of kingdoms) (Machan1998). In the case of the UAE, landownership is decided upon by the ruler or the Sheikh.

2.3.1 Land rights

Having looked at various property rights in general and noted the importance of the relevant legal aspects, this research now investigates the sources of law and the different stakeholders who could influence the design of Dubai's ARVS (Appropriate Residential Valuation System). To this end, the project first investigates general issues around land before looking at specific information-rich examples which could help generate a complete solution for the UAE ARVS.

Maine [1861] 1963, p. 252, pointed out that, ‘it is more than likely that joint-ownership, and not separate ownership, is the really ancient [property] institution. Ostrom (1999) disagrees that joint ownership or commonly held property is less effective than private ownership. She finds that well-governed common property improves sustainable resource allocation while also allowing a range of access rights to different groups. In modern urban capitalism, land rights vary with ‘freehold’ or ‘leasehold’ interest. According to Corgel et al. (2001), ‘freehold’ is a legal right to the possession and income of real estate during the life of the owner. There is also a special case which grants a title to a ‘time share’, which provides a freehold only during particular times in a year. The rights of possession of the estate include the right to control its use, the right of disposition (to transfer ownership to others), and the right to ‘quiet possession’, meaning holding title ‘without unfounded disturbances from those claiming defects in the title’ (Corgel et al., 2001, p. 459).

“By contrast, leasehold provides use rights for a specified duration of time, although it can be for a very long time, such as 99 years. The leasehold is normally in exchange for a rental payment to a freeholder. The ‘tenant’ is the person or persons occupying the site who pays the owners or leaseholders to whom some rights are conditionally assigned by contract.” (Foldvary 2005).

Various authors including French (2013) point out the problem of over-renting freehold properties, which is particularly noticeable in falling markets and is relevant to the UAE rental market, in which rents are reviewed in accordance with each emirate law (Al Dah 2015). Any valuation system must therefore allow for the income flows from leased property and land. On the other hand, another issue which emerges with leasehold properties is decreasing the lease period. Both issues should be taken into consideration when valuing leasehold properties.

Another category is common land. In this system, individuals can own residential and trade properties in multi-occupancy buildings, but sometimes ownership is constrained by time limit. Wilkins (2014) considers common-hold tenure as a fairer system of ownership. For Webster *et al.*(2005), the aim of common hold is to strengthen governance, make ownership fairer and management simpler.

Common hold was introduced to deal with problems associated with leasehold, such as limited lease time and the management of leased buildings. It helps with promoting collective ownership in particular in large cities and towns where leasehold is the most common form of ownership. The model can be applied to both to new and old development. Although common hold and the concept of so-called “gated” communities seems to be the ideal form of property ownership (Webster and le Goix 2005), some authors such as Mansfield (2009), argue that leasehold will in practice remain the prevailing form of flat ownership, as well as being proven to be more profitable to developers than common hold, since with leasehold they can retain the freehold interest even after selling off all the flats. (Wilkins 2004).

Land rights refer to the continuous right of individuals to freely enjoy, access and use land at their convenience, provided they do not hinder the right of other individuals. Property rights also involves responsibilities and needs the support of the property regime. Therefore it is the property regime which enforces the land rights linked to ownership or access. Access rights to land allows individuals (e.g. tenants) to use the land in return for consideration (responsibilities or rent). Land rights add security to the people involved and increase their financial power because the lands can be mortgaged to obtain finance. Globally, the issues related to land rights have attracted attention of everyone since land is the basic factor of production and various aspects of development arise from land. According to Wickeri and Kalhan (2010), one quarter of the world’s population are landless and unless they have access rights this affects their basic needs, financial security, prosperity and social status.

2.3.2 Customary and feudal rights

In traditional communities, customary laws often regulate the ownership of, and access to, land but this varies between men and women, and also traditional and legal practices evolve over time (Mukund 1999). Throughout history, land rights and property regimes have constantly developed. In Britain, Celtic, Roman,

Anglo-Saxons, Danish, and then the Normans came and went. Feudalism was the Norman practice to regulate land, where farmers were given tenancy in exchange for their labour (Cohen 1927). In the UK, which influenced residential property laws in the UAE, the feudal system slowly changed into the modern free land market (Simpson 1996; Stroud 2013). However, the concentrated ownership of land resulting from feudalism still affects class and wealth today (Baker 1990).

The rights may be full private ownership, or use rights, or leaseholds, or customary rights. 'Customary rights' refer to established, traditional patterns of norms that can be observed within a particular socio-cultural setting (Thompson 1991). Land law is the basis for smooth operation of land systems. A good land distribution system paves the way to prosperity. (ibid. 1991)

In some countries, the state implemented direct management of land, but due to regular failures, they are now thinking of private property rights. (Foley et al.2005)

It is a commonly accepted concern that reforming customary landownership is difficult and often problematic. The World Bank (2015) reports little success and common failures in particular in developing countries, in implementing reforms of customary land ownership rights. Diverse nations and communities across the globe share similar stories of failure. Often reforms start with good intentions, and ambitious programmes are started but fail and leave everything in confusion. Tajikistan, Indonesia, Guatemala and others all share similar experiences. In Africa, Kenya provides a good example of this kind of half-implemented reform (Chossudovsky 2003). The World Bank is trying to take steps to address this through two instruments. First, it assists authorities to record customary rights (e.g. in Ivory Coast). Second, it supports traditional bodies to register customary ownership as in Ghana. In any case, most countries have a tendency to end up with co-existing dual systems of legal and customary practice. The major challenge with this co-existence is the link between two systems and agreeing on conditions of transferring ownership from one system into another. In 2007, the World Bank recognised this as major blocker to land reforms and to development in general. The other important issue is the taxation of land or increases in the

value of land, particularly peri-urban land which can be developed into housing. From its review of land rights, this thesis concludes that there remains a range of issues to be considered.

For a complete answer to Dubai's residential valuation problem, important considerations which the system should capture include the nature of the tenure and rights, legal jurisdiction and cultural beliefs relating to property as well as the evolution of rights. To summarise the definition and allocation of property rights is the most complex area. Various problematic issues must be considered. A lot of disputes arise between family members, communities, regions and even between countries. Different methods in distributing land, administering it, and transferring properties are being followed by various governments, religions and local practice of communities. Dubai has its own rules and customs that shape residential land distribution and ownership.

2.4 Capitalism and property markets

Having covered the philosophical aspects of land and property markets, the research now turns to modern urban property markets, looking for further insight relevant to Dubai-RVS. In the West, capitalism replaced feudalism as the main economic system (Baker 1990). Capitalism is an economic system in which the majority of properties are owned by private entities aiming for profit and it is characterised by the private ownership of land and property. Ultimately, this leads to the concentration of property in the hands of a minority (Harvey 2010; Bowie 2017). In a capitalist economy, the price for exchange of a commodity or property is determined by the parties to the transaction or 'effective' demand and supply (Jowsey 2011). When communism fell twenty-five years ago, many thought that capitalism had succeeded in becoming the world's pre-eminent system. However, capitalism faces four serious problems: financial instability, migration pressures, ecological limits and a lack of ethics (Bowie 2017; Harvey 2010).

Free market economists like Hayek (1944) emphasize property rights and freedom and therefore oppose state intervention which is considered wasteful and, more dangerously, leads to autocracy (Smith 1776). However, Levy (2014) notes that the recent financial crisis has undermined many people's belief in capitalism. As Minsky (1993) points out, excessive property debt can destabilise the system. As well as the financial crisis, migration, due to conflicts, can also destabilise imperfect capitalist property markets (Pine 2014). The other area where capitalism struggles is with environmental public goods such as clean air and water. Holzer and McConnell (2014) maintain that, without either property rights or market exchange, these resources can be wisely allocated by proper rules regarding access. People manage in situations like this with access to schools or on-street parking without transferable rights. For Gibson-Graham (2014), the main weakness of capitalism is its lack of proper ethical foundations. Some countries – for example Denmark – seem to have managed to control these weaknesses in their system (Selmer 2013). Western capitalism in Denmark promotes benefits in terms of property and land distribution to all layers of the society, a system which appears quite attractive to the UAE. Given the rapid depletion of natural resources and growing population, the idea of sustainable housing development is highly relevant to the UAE residential property market.

Global corporations have an unequal share of wealth and raises the concerns of the world community. Apart from questions around the fair distribution of property, another criticism of the capitalist system is its short-term focus which under-prices resources and ignores the most vulnerable members of society (Bowie 2017). In capitalism, corporations own significant amounts of land and arguably only focus on their profitability and not on the benefit of the country where they operate (Harvey 2010). Interventionists argue that governments should regulate corporations and formulate long term strategies for the benefit of the public.

Having briefly reviewed the history and arguments about capitalism and modern property markets, it is clear that the political economy, land rights, government policy and urban planning all dramatically impact on the value and feasibility of

housing development and the type of housing markets. The UK provides a good example of how policy changes influence the evolution of markets. At the beginning of the twentieth century, the Housing Acts of 1919 and 1925 reflected the changing social aspects to land ownership. From the beginning of the 19th century, local authorities built and operated houses to lease to workers at reasonable rents. Private tenants received new rights, secure tenure and rent regulation. The housing markets in the UK were further reshaped by Thatcher's 1980 reforms which gave tenants the right to buy their own council home. Since 1979, council housing stock has declined dramatically leading to a housing affordability crisis (Bowie 2017). Nevertheless, they and housing associations still own 45% to 55% of the country's social housing stock (ibid. 2017).

2.4.1 Property markets dynamics

Property markets are complex open systems influenced by internal and external forces, but as per Fig. 2.4 below, value emerges from the interaction of capital and space markets, mediated by governments, financial and other institutions (Aalbers 2017) External pressures include structural shifts in global economies, migration and financialisation (ibid. 2017). Internal pressures include the spatial impact of GDP growth or decline, technology concentrations, population patterns, government policy, regulations and financial institutions (ibid. 2017). For Aalbers (2017:3), the financialisation of housing or the close connection of global finance with housing involved the 'wall of money', globalisation, neoliberalism and privatisation or 'regulated deregulation'.

At the local level, real estate market complexity means transactions have relatively high information costs compared with other investments such as shares or bonds but are also cyclical (Baras 2009; Ball et al. 2012). Despite information limitations, segmentation within a supply and demand framework provides a useful conceptual framework for property analysis. Property values are determined by interactions between the changing space market and turbulent

capital markets subject to information imbalance, as illustrated in Figure 2.4 below.

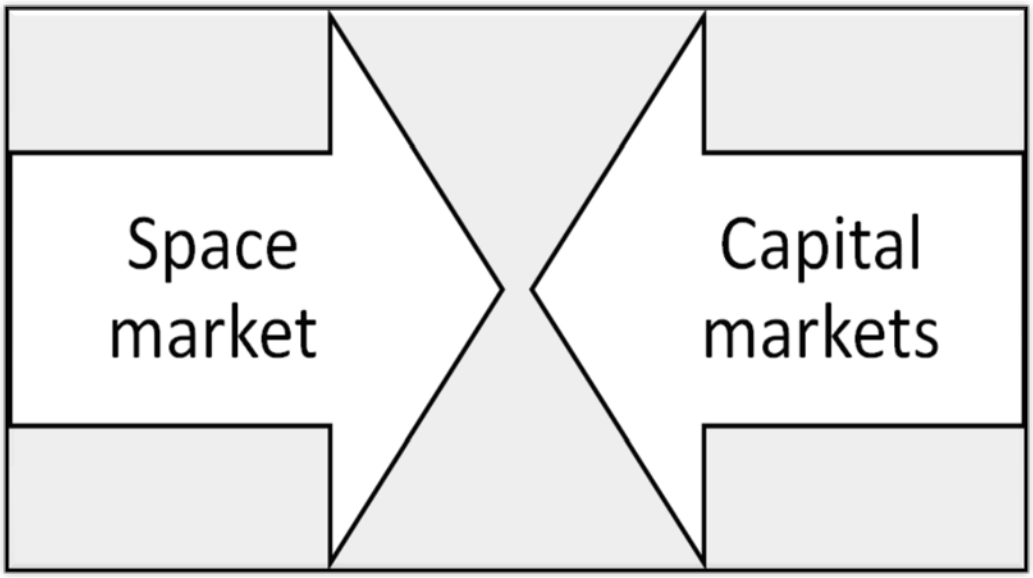


FIGURE 2.4: CONCEPTUAL MODEL OF MARKET ANALYSIS AND MARKETABILITY ANALYSIS (AUTHOR, 2015, ADAPTED FROM HUSTON AND ELLIOTT 2012; PYHRR 1989: 409)

Supply and demand in capital and space markets are mediated through geography (landscapes, geology, hydrology and topography), urban built form, government policy and institutions. The level of demand is indicated by sales volumes, rents, vacancy rates. Space market quality is determined by a complex interaction of influences. An important demand driver is socioeconomic status, indicated both by income and by crime statistics. Jobs and access to amenities is another important space market driver and includes indicators like employment, medical, educational, shopping and entertainment facilities. Other critical demand factors include building quality and environmental conditions, indicted by air quality, traffic noise or industrial blight. Demographic factors have a strong influence on demand for property. Populations can grow internally or through migration. The UAE attracts migrants from all over the globe and the movement of immigrants into the Emirates influences property markets. Significant sources of migrants include Africans, Asians and Europeans. Overpopulation is one 'push factor' for

migrants. Here the underlying pressure for people is their basic needs to lead a good quality life (Sen 1988). They are in need of basic amenities such as hospitals and hygienic dwelling houses, in order to obtain healthy life styles and in case of falling sick to receive good treatment. Moreover, they need educational facilities to improve their lives (ibid. 2009). In Africa, major changes in crop cultivation force many African communities to seek new places to live. The facilities to cultivate crops are very important for any human settlement in particular, but often fail due to many reasons such as change in climate, lack of rain, destruction by animals, and so on. Unfortunately, many African countries do not yet have access to basic industrial farming tools and techniques to avoid this and to recover quickly from large crop failures. Given the proximity of the UAE, many Africans and other nationals are now working and actively investing in the UAE residential market. Increasingly, they are benefiting from UAE new regulations which allows foreigners leasehold and freehold ownership (Matroushi 2016). In the case of migration, as Hannes and Einsporn (2014) describe the problem of displacement of millions of people due to wars and political instability, which has become the focus of worldwide attention.

An important common demand and supply driver or brake is the planning regime and the portfolio of projects in a locale. Infrastructure and public transport connections can increase demand. On the other hand, restrictive planning regimes can reduce supply and drive up prices. Other influences on space market supply are land costs, the inventory competing projects, indicated by demolitions and new construction projects. Housing supply is affected by construction labour rates and the availability of financing which connects with capital markets.

Capital for housing development can come from internal savings, credit or external sources. The factors which influence capital markets include monetary and financial policy, market conditions and sentiment as well as financial deregulation and the shift of housing from a dwelling into an investment asset (Aalbers 2017). While the focus of the thesis is space markets, the valuation systems needs to capture aspects of capital market conditions and sentiment to avoid mispricing.

This section reviewed property market dynamics and found that property values are influenced by multiple forces within space market and capital markets. Important considerations for the RVS are to capture and address some of the main factors such as accurate national, regional and local demographics, housing market statistics and planning information.

2.4.2 Property segments

Imperfect property markets are segmented in many different ways, including by structure (flats/houses), function (rental/owner-occupier), and geography (neighbourhoods) and by purpose (commercial, residential). Most private property (in terms of building numbers or wealth) is residential but the sector also includes social housing (Aalbers 2017). The other main property sectors are commercial - offices, industrial, retail and hospitality segments, government and logistical. Whilst it is not the focus for this research, it is clear that any RVS should identify market segment for listed assets to help with valuation and planning. In large cities and other urban areas, certain zones are nowadays put aside as residential areas. These areas accommodate services to support residential living compared to industrial zones but location amenity is affected by air pollution and a host of other factors as explained above (Perlin et al. 2001). Many countries including China have built new cities and housing projects in industrial areas to stimulate growth, accommodate families but 690 million people live in environmentally degraded areas with high PM 2.5 air pollution (Grunewald et al. 2017).

Property sub-markets (market segments) are simply categories which usefully split assets. These sub-markets include whether it is public or private sector; the purpose of its use (so whether it is residential – for dwelling or investment – or commercial, including office, retail, industrial, education, health, hospitality); geographical (region, city, district, neighbourhood, or even street, where one side may benefit from views or school catchment area); structure (type, style, size, age, green surroundings); logistics, such as roads, rail, ports, and dams; and amenity service infrastructure, such as for health, schooling, tax, law, leisure.

Figure 2.5 illustrates some of the ways that property markets can be sub-divided – or a 'cluster of substitutes that are cross linked in complex patterns related to buyer and seller behaviour' (Pyhrr 1989: 414). Submarkets can be distinguished by:

- Location (transport linkages, income levels and social class)
- Function (whether available to rent or buy)
- Type and quality of the property

FIGURE 2.5: DIFFERENT WAYS OF SEGMENTING PROPERTY MARKETS (SOURCE: HUSTON AND ELLIOTT 2012)

Fig. 2.5 illustrates that due to their product and quality similarities, even though they are not spatially near to each other, a flat in Buj Khalifa can compete with one in Dubai Marina, implying that the market area for luxury flats is the whole of Dubai. Other practical issues relating to spatial segmentation in Dubai include the degree of treatment or capital investment required to bring projects to market. Regular shaped blocks are easier to develop. Steep plots may be difficult to build on, but this is often compensated by the view. Soil topography and vegetation are usually not important factors for urban valuation (although soil condition can influence building foundations). The other important consideration here is one of

the frontage and depth of a property, particularly for commercial and retail properties which need exposure to clients and customers, and so frontage is very important. Jeramiah Road for example, has a wide frontage with a great deal of footfall and drive-by customers. Footfall and frontage is less important for industrial properties, such as those in Jabil Ali Free zone where size, ease of access and proximity to other facilities may be more important. With residential properties, frontage is important and a long narrow block (low frontage to depth ratio) is not favoured although this is not a major issue in Dubai, because DM has planning restrictions (Mashroom 2016). On the other hand, frontage to a busy road can represent a clear disadvantage to residential property. Most local authorities specify frontage to depth ratios for land developments through their town plan (Adams and Tiesdell 2013).

It is important to recognise the importance of the property regime and planning system for informed residential property market analysis (Whitehead 2007). First, zoning restrictions can greatly influence values. Second, infrastructure projects can greatly strengthen or undermine values. Finally, the evolution of planning government policy and planning regimes also alters valuations (Tallon 2013). Land, planning or property professionals should keep up to date with urban plans and development news (Al Dah 2015). While two properties may look very similar, their values could be greatly different depending on what is allowed to be built- for example, there may be a residential property on one and a unit development on the other (Reed and Sims 2014).

To conclude the review of capitalism and modern property markets, valuers in the systems should be aware of the influences of global capital markets and a range of local spatial factors. In terms of dynamics, a detailed knowledge of the planning regime and infrastructure plans is vital for reliable valuations. A mature RVS system should capture many of these drivers or constraints and identify market segments, planning and regulations. Judging segmentation involves not just spatial but also functional and dwelling quality considerations. It is clear that residence types and places vary widely and the system should capture all of these details. Our research into Dubai RVS will focus on residential flats. In the UAE,

residential homes for Arabs are characterised by the desire to separate men and women's living spaces, the need to entertain guests and therefore to dedicate large parts of house as a reception area (called *Majlis* in the local language) (Damluji,2006). UAE property price is influenced by the size of the *Majlis* and the ability of the house to separate men and women (ibid. 2006). This in general means that residential units need to occupy large areas of land but currently there is a pressure on available space and new UAE generations will have to live in smaller residential units or in towers (Matroushi 2016).

2.5 Islamic institutions and property

Dubai is a multi-national city-state with a legal system, based both on Sharia and Anglo-Saxon legal traditions (Williams 2007). The valuation system should incorporate relevant aspects of these legal traditions as they apply to property. According to Glenn (2007) there is no simple definition of 'legal tradition' but it certainly links 'past with the present' so, while not quite 'undefinable', the term is 'incomplete'. Glenn speaks of 'communal or contextual' and 'individualistic or rationalist' traditions, summarizing tradition as a common feature of societies. Sharia law provides a significant basis of law in various Muslim countries, including the UAE, which operates a selective mix of Sharia and Civil Law (Sarah 2016). The jurisdiction, tradition and sources of law within its frame of the Sharia legal system are first outlined in this section.

Islam allows private ownership of property provided it is acquired lawfully and it is not used to harm others (Al Nuaimi 2016). Property rights across the 57 Muslim majority countries are all different despite their common Islamic traditions. These rights are a result of modern economic conditions and choices. Some Muslim countries have been quicker to adapt to the challenges of economic liberalization or the challenges of globalization, depending on various factors, including a country's specific socio-political, religious and historical context.

The Oxford Dictionary (2014) defines Sharia as "Islamic official law based on the teachings of the Koran and the traditions of the Prophet (Peace upon him) (Hadith and Sunna), prescribing both religious and civil duties and sometimes punishing penalties for law-breaking." It has generally been altered by legislation adapted to local conditions. Unlike some western courts, the principle of precedent is not found in sharia courts and it is therefore difficult to predict the outcome of any trial. Sharia law has five main sections: Penal Law, Transactions Law, Family Law, Divorce Law and Succession Law (Nydell 1998).

'According to classical Islamic legal theory, most agricultural land is *miri* or state owned, over which individuals enjoy only usufruct rights' (Horii 2011: 179). Generally, Sharia law has three different categories of ownership namely private, public ownership and *waqf*. As Dubai is an international city, its legal tradition is mixed and sometimes conflicted. In the UAE, Sharia tradition is strong except for commercial matters, where the influence of religion is less noticeable (Hirschl 2008).

In Islamic societies, agreement between parties is fundamental to solving diverse social problems and, therefore, contracts are essential. While ultimately the UAE takes its core legal principles from Sharia, most legislation actually originates in the 19th century Egyptian legal code derived from French civil law (Davidson 2008). The civil law tradition relies mainly on a written constitution, statute and detailed codifications. In a civil law tradition, in contrast to common law, case law and precedent are related to the interpretation of law. Consequently, in the UAE, rather than a broad legislation summarising historical precedent (in functional areas of law such as agency, company, labour, or intellectual property), legal principles are expressed in detail in civil and commercial codes. The result is often bureaucratic inflexibility in certain cases. A further complication, on top of this, is that a dual court system operates. Sharia and civil courts operate in parallel, each covering different areas of the law. All laws are published in Arabic, in the official declaration, which is equivalent to the statute book in the UK. All documentation submitted to the court or issued by them is in Arabic, and all court proceedings are conducted in Arabic. The sequential legal hierarchy

for a mixed-source legal location like Dubai is (1) laws in force in the Emirate, (2) the provisions of the Sharia, (3) the rules of custom and usage, provided there is no conflict with the laws, or public order or morals; and (4) the rules of natural justice, law and equity (Dubai Explorer, 2006). Where federal or local laws do not address the issue, Sharia is applied. However, for Muslims Sharia is the dominant source of family law.

In the region during the nineteenth century, under Western and particularly French pressure, Sharia became secondary for commerce (Foster, 2004). The main supporters for French influence were the Lebanese community who, effectively, spread its 1807 Commercial Code by way of its Ottoman representative (Ibid.). However, some now question the institutional capacity of the dual system to cope with complex disputes. Dubai claims it is addressing concerns about its legal competence (Sarah 2016). In Dubai, newly appointed judges are being trained to operate in the new Property Committee, whilst the Dubai court system is web-enabled for better case management (Abdullah 2016). Figure 2.6 illustrates the hierarchy of UAE courts and how Sharia Court jurisdiction is limited to all those matters not expressly assigned by law to the Civil Court (Sarah 2016).

FIGURE 2.6: OVERVIEW OF UAE COURT SYSTEM (BALLANTYNE, 1986).

Apart from the formal sources of law already identified, Ballantyne suggests that the Arabic language itself acts as another *defacto* legal source. Ballantyne (1986:5-58) states: Arabic is the official language of Dubai and, consequently 'it is the language of the courts, and in the courts of the area no other language is permitted'. Despite formal and linguistic legal sources, negotiation also acts as another source of law to settle many commercial disputes. In fact, at the national level, the new Federal Arbitration Law (2009) actually adopts international best practice for both domestic and international dispute resolution. Dubai recently copied Abu Dhabi's initiative in this area by enacting a new Arbitration Law to handle cases within the Dubai International Financial Centre (Martin 2011).

2.5.1 Private and public ownership

This includes ownership of any property acquired by lawful means. Islam respects freedom and private ownership is essential for freedom. According to Sait and Lim (2006), Islam promotes individual property rights to motivate economic production. Islam promotes freedom in sale, purchase, lease, mortgage, donation, and other types of transactions. However, Islam also encourages responsible ownership based on strong ethical code of conduct, which considers certain actions like fraud and bribery socially unacceptable. This religious and community-based ethical conduct promotes, in theory, equal ownership rights. These rights are equally extended to both men and women.

2.5.2 Waqf and Islamic law

Waqf in Islam involves donating land and property for charitable usage. In the Arabic language, *Waqf* means to stop, contain or preserve. According to the General Authority of Islamic Affairs and Endowments (2014) in UAE 'In Islamic terms, waqf refers to religious endowment, i.e. voluntary and unchangeable dedication of one's wealth proportion of it in cash or kind such as a house or a garden, and its distribution for sharia compliant projects such as mosques or

schools. Once created, Waqf is a permanent donation and can include business but can never be sold and must be distributed according to endower's wishes.' (Cattan 1900).

While both Sharia and Civil Law recommend that contracts are written down and witnessed for clarity and evidence, oral promises are sufficient. However, in Arab countries, such as the UAE, in some cases just a handshake was sufficient, as in the example of Sheikh Rashid Al Maktoum (Wilson, 2008). Whatever its formal arrangements, obligation is central to Sharia and the faithful are specifically required to fulfil all obligations. In Sharia, obligations extend to free dispositions, endowments and trusts (Hussain 2004). For Ballantyne (1986) outcomes in Sharia is less *certain* because judges must consider the facts of each case and specific circumstances. Despite the fact that in the UAE commercial contracts, particularly ones involving banks, are actually decided within a Civil Law tradition advises to consider Islamic as well (Gutteridge 1971; Sait 2006; Delcambre2005). Encyclopaedia Britannica' (2009) mentions the other common legal principle in common and Sharia law intention to enter into a contract that is sufficient to make the promise enforceable in the courts. As in Common Law, consideration in Sharia extends to money, goods or services or anything valuable and capable of being given, or if an action, performed but not illegally (Averroes 1994; Hussain 2004).

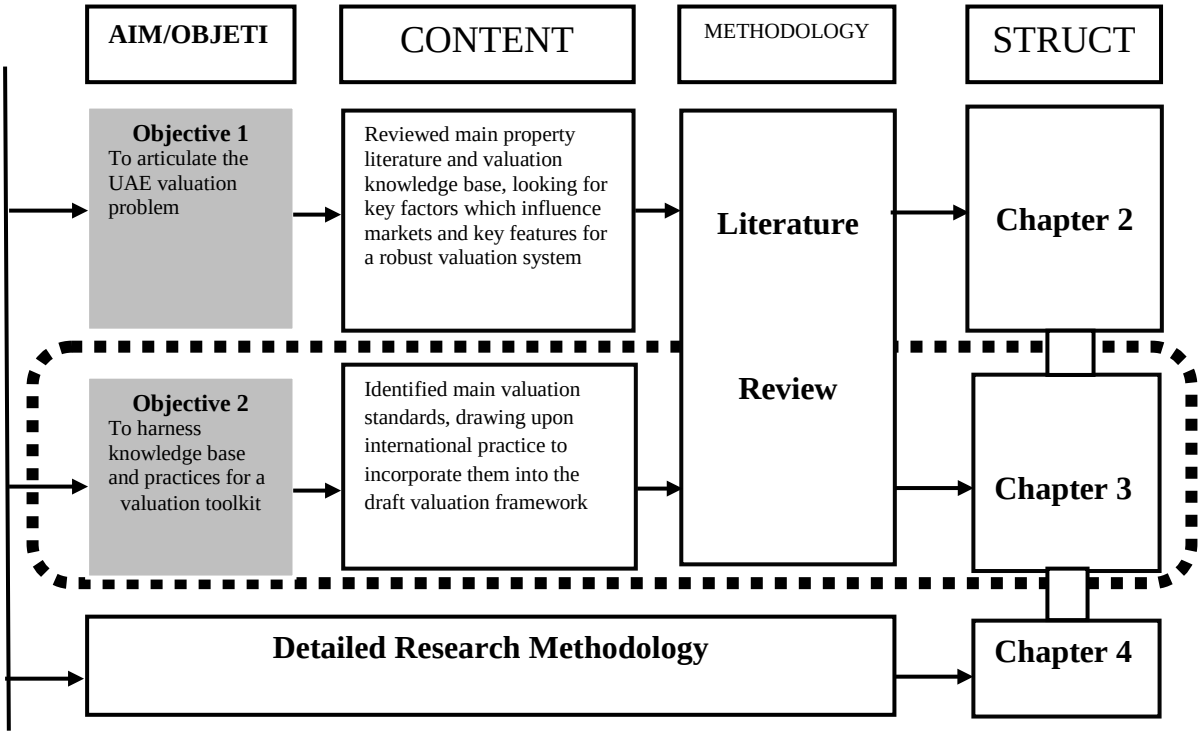
To conclude, while there are some similarities between contracts under various legal traditions, in Common and Civil Law, commercial concerns dominate. Valuers in the system should be aware of the jurisdictions and sources of law that can influence property rights, ownership and project feasibility. In mature markets, institutional and legal arrangements are clear, and valuers are capable of making commercial judgements to cope with these complexities.

2.6 Conclusion

The second chapter of the thesis has investigated the impact of the specific features of real estate, its social implications, land and property rights, property markets and Islamic institutions. It found that property is heterogeneous and its markets are imperfect, complex and segmented but also cyclical and liable to speculation. Value is affected by evolving planning regimes and government policy, especially the tendency to try to attract investment. Legal traditions, property regime, historical and social context all shape the specific bundle of rights associated with property. The chapter also noted property's structural and spatial heterogeneity, dual investment and consumption character, legal complications, imperfect markets and securitization by banks. The Dubai system must capture and update a rich information field which considers historical, spatial and social influences in diverse locales. Legal considerations mean that a robust system should capture ownership rules or property regulations. Property information systems require capable professionals who understand all these interactions and their implications for valuations. Given its Emirati focus, aspects of Sharia law need careful consideration when designing an appropriate valuation system for the UAE. There are two consequences. First, research must be conducted into how global valuation systems cope with real estate's complexity. Second, part of the answer to developing an appropriate residential valuation system for the United Arab Emirates requires a proper and structured investigation on how the system copes with the complex rights involved in property ownership. We have now identified the main valuation and property market issues drawing upon the literature (RQ1) and identified some key features for a robust residential property valuation system (RQ1) as well as how UAE housing market context and legal institutions could influence values (RQ2). Three main themes emerged for the draft explanatory valuation framework. First is the importance of a rich and systematically updated information field to capture spatial and capital market drivers or hindrances such as legal rights, social structure and indicators of place quality and planning details or the evolution of capital markets. The second review, of customary and Islamic law found that

institutional clarity; capabilities and trust reduce risk and attract investors. Finally, to reach its first objective and identify all the features for a robust residential property valuation system, the research needs to draw upon international practice and valuation standards.

Chapter 3: Valuation standards



3.1 Introduction

Having reviewed the general literature on both real estate and markets in the second chapter of the thesis, this third chapter investigates systems and current valuation issues, practices and standards to develop a draft explanatory framework and answers the subsidiary research question of, *What are the key features for a robust Dubai residential valuation system?*

The key valuation system features help structure subsequent empirical investigation into Dubai RVS. After an overview of 'systems', Chapter Three investigates, 'types of value', 'principles of valuation', 'factors influencing value' and 'valuation methods and the various standards and legal cases commonly seen in developed real estate markets. At the end of the chapter, the thesis applies these systems and professional valuation understandings to design its draft RVS explanatory framework which is subsequently used to shape RVS research design.

3.2 Systems theory

Ludwig von Bertalanffy (1933; 1968) first developed General Systems Theory where components working together form a complex whole whose behaviour cannot be explained by its constituent parts alone. Systems theory is used in many fields such as biology, computers or transportation. According to Thelen and Smith (2007), dynamic systems are sensitive to initial conditions and are characterised by boundaries, components, relationships (feedback loops), change, self-organisation and self-stabilisation with more order and complexity. Systems theory can be applied to land and property markets but it is a sub-system within a wider urban one and interacts with the planning and financial systems as well as the natural environment.

FIGURE 3.1 URBAN SYSTEM TO SHOW THE INTERACTION BETWEEN ITS VARIOUS COMPONENTS IN THE URBAN SYSTEM (SOURCE: CSIRO 2008)

A residential valuation system has boundaries, inputs (registration, information), elements or entities and their capabilities, (stakeholders, institutions), processes (valuation mechanisms), outputs and feedback (prices, valuations and market reports). Specific aspects of the RVS system include inputs, such as capital investment, immigration, labour, foreign credit or information flows. Stakeholders are system elements such as promoters, developers, banks, investors, planners and residents with different project involvement and capabilities (professional and technological competencies and valuation practices). Mechanisms regulate the social and professional relationships or interactions between system elements, depending on the planning regime and the institutions as well as the salience of professional guidelines, training or valuation standards. The residential valuation system outputs include policies, regulations, valuation

reports, appraisals, and information about prices and other real estate trends such as vacancies/occupancy, urban quality.

TABLE 3.1: GENERAL SYSTEM CHARACTERISTICS RELEVANT TO A RVS (SOURCE: AUTHOR, ADAPTED FROM BERTALANFFY 1933; 1968)

FEATURE	APPLICATION	DUBAI IMPLEMENTATION
Boundaries	System limits, separating internal vs. external.	Property markets affected by external capital injections and information about global conditions
Components	Elements like institutions, actors which function together	The various property market stakeholders
Relationships	Exchanges between component (feedback)	Information exchanges, transactions, contractual and other legal and commercial interactions
Changes	Normal fluctuations and regime changes	Rent increase, normal regulatory improvements Financial crises
Self-organisation	Adaptation to new situation	Response to the crises with new oversight regimes, standards and regulations

The table illustrates that a systems approach can be applied to the study of property markets and could provide some useful insights into designing a residential valuation system. All the notions characterising systems such as 'boundaries' link to earlier discussions about the features of property and property markets such as for example the internal and external factors influencing property markets. The residential valuation system fits within a wider urban system which includes the planning and development sub-systems. Figure 3.2 below illustrates the RVS as part of the construction and development system within the urban system.

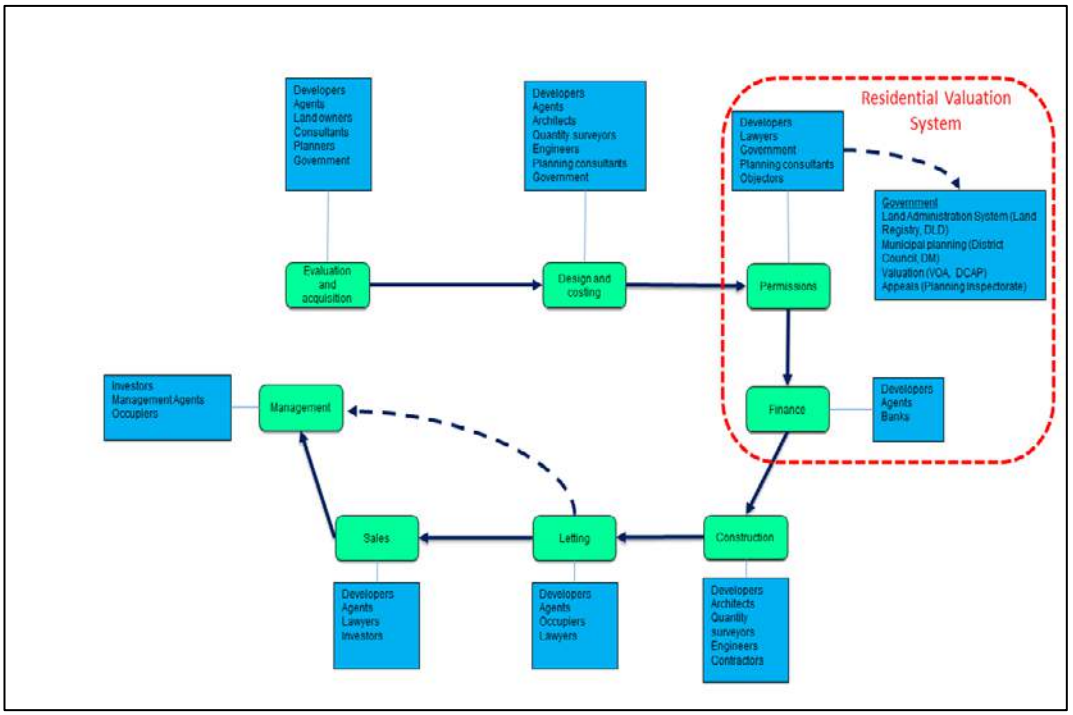


FIGURE 3.2: PROPERTY DEVELOPMENT SYSTEM (SOURCE: AUTHORS 2017, ADAPTED FROM RICS (2004) AND VANDENBERG (2007)).

The RVS interacts with other land or administrative or record-keeping management systems involved with land and property title/transfers, tenure, encumbrances, boundaries, transactions, planning, development appraisal, risk evaluation. A useful practical example of a RVS is the District Valuation Service (DVS) within the UK Office Valuation Agency (OVA) which is one of the largest employers of Chartered Surveyors in the UK. The DVS values and surveys properties but also provides a range of advice, including on development feasibility, compulsory purchase, dilapidations and rent reviews/renewals (OVA 2017). HM Land Registry (2007) protects more than 24 million titles, covering more than 84% of the land. However, recently both the UK VOA and the UK Land Registry have come under strong criticism and improvements are considered necessary (Craven 2017).

To conclude, a systems approach provides a useful structure to organise the research into the RVS but pragmatically the valuation system forms part of a wider urban, planning, taxation, legal, financial and other systems. Therefore, a

robust system needs to be embedded and to interact with other mature systems and agents operating within, so that it should be capable to collaborate and understand the wider picture.

3.3 Types of value

Many things are valuable or important, but not necessarily in a commercial sense. In common language, the notion of 'value' has many different meanings. Qualities like 'courage' or 'integrity' are 'valued' socially but difficult to link with commercial markets which only consider 'effective demand' (in other words, people who can pay) (Atkinson 2007). Commercial and economic values reflect marginal trade-offs in human interchange and trading systems, based on scarcity and what undecided people are willing to pay in order to purchase an extra unit (Sen 1987). Within the set of commercial values, there are many variants such as market, investment or fair value but all are ultimately determined by the interaction of supply and demand under specific circumstances and market conditions. When discussing property 'value' in this thesis means commercial market value, rather than philosophical or aesthetic notions, conditioned by human exchanges in the current economic system. Over the years, the International Valuation Standards Council (IVSC) and other professional bodies like RICS and TEGOVA have produced various debatable and evolving definitions of different values which financial crises may undermine. In short, debate about valuation continues. The economist, Adam Smith (1776), distinguished between two meanings of value: 'value in exchange' or 'value in use'. Some useful items, like water, can have little or no 'value in exchange' (although not in the desert)! 'Exchange value', on the other hand, is the 'power of a good or service to command other goods or labour services in exchange'. In property, 'exchange value' represents the consideration an informed purchaser would offer to obtain possession of a property under given market conditions. It is the ratio of exchange of one commodity for another, expressed in monetary terms. For Smith, ultimately, labour costs drove 'exchange value'. In contrast,

John Maynard Keynes (1936), an influential economist, thought that opinion or market sentiment, not fundamental factors, drives exchange value of asset prices. Famously, Keynes (1936) stated that, 'Successful investing is anticipating the anticipations of others'. In this view, value for investors is subjective and is influenced by opinions. Chapter 2 though alerted us to the dual nature of property which also has a consumption dimension. Property has the power to give satisfaction and its use value may be created and exist in the mind of the individual as the satisfaction it is believed to offer. Subjective factors such as pleasurable living or nearness to the sea are examples of possible benefits that may affect property use value. However, as well as the idea of use and exchange value, as many as 54 types of commercial value exist, some of which are indicated by Figure 3.2.

FIGURE 3.3: LIST OF VALUES SOURCE: HUSTON AND ELLIOTT (2012)

The range of possible values in Fig 3.3, demonstrates that value extends beyond individual perceptions to multiple commercial 'values' related to different

exchange situations or specific purposes and institutional settings. Value varies from time to time and from person to person so that the base of valuation and the valuation date are critical (RICS 2015). In short, 'value' is context- or industry-specific and relates to the context and purpose of the valuation. In reality, as Watkins pointed out in Singer & Friedlander Ltd v. John D Wood & Co [1977], valuation 'is a task which, rarely if ever admits of a precise conclusion.' Some have a tendency to think towards a more subjective view on value while others tend towards a more technical and objective view. However, only the five definitions in bold (See Fig 3.3 above) are material in the search for a complete answer to the research question of this thesis (Chapter 1). We have looked at economic value, and so the research now turns to Fair value (FV), Market Value (MV), Investment Value (IV), Rateable Value (RV) and Mortgage Value (MGV) in turn.

Fair value (FV)

Rather confusingly, the three main global standard setters, including International Valuation Standards Committee (IVSC 2008) and International Accounting Standards Board (IASB 2013) and RICS (2017) provide three definitions of 'fair value'.

I. 'Hypothetical but reasonable opinion on the likely amount of local monetary consideration necessary to acquire legal title or control of an asset in specific historical and spatial circumstances' (IVSC 2008)
II. 'The estimated price for the transfer of an asset or liability between identified knowledgeable and willing parties that reflects the respective interests of those parties.' (IVSC 2013).
III. 'The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.' (IASB 2013)

Clearly, for practical valuation purposes, a robust RVS must specify fair value definitions, appropriate to each client or valuation purpose and keep updated with the evolutions of standards.

Market value ('MV')

Market value ('MV') is 'an attempt to identify the exchange price' (Crosby, 2000; Whipple 1995). MV is distinct from investment value ('IV') or mortgage valuation for banks (Crosby and Hughes, 2012) but these are opinions whose reliability is conditioned by the institutional setting, the evidence supporting them (RICS 2010; RICS 2017). 'MV' is an estimate of what a hypothetical marginal player is likely to pay for title. Market conditions influence value. Property inflation is likely when supply restrictions (planning restrictions or increases in construction costs) combine with high demand, influenced by population growth or boom times. Formally, Valuation Practice Statement (VPS) 1.5.2 (RICS 2017) defines MV as, 'The estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm's length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion.'

Worth or investment value ('IV')

Worth is economic benefit generated by a project for a specific individual or entity. It is perfectly possible for a property to have value in use which is greater than its market value. For example, a house outfitted with a three-car garage in a neighbourhood where one or two-car garages are typically found, can be worth more to a car enthusiast than it could command in the market. Such extras could undermine market value, since most purchasers do not need them. Thus "worth"

considers the viewpoint of a specific owner or user, not a general (hypothetical) potential purchaser. For appraisal, the distinction between worth and market value is essential (RICS 2017).

Rateable Value ('RV')

RV is determined specific to the institutional context but is the value for taxation purposes as stated by legislation. In the UK, it is the Office of Valuation Agency which calculates business rates and domestic rateable values which are used as the basis for raising local taxation revenues (OVA 2017).

Mortgage Value ('MGV')

MGV is a more prudent valuation than a MV since it is designed to help estimate the maximum loan a financial institution can prudently lend (Crosby and Hughes 2012). In theory, MGV, should take a more prudent and longer term view of comparative prices or sustainable incomes for its estimations to avoid over-confidence. In the UAE, the banking sector and each of the different banks will have specific standards relating to MGV estimation (Al Flase 2016).

Commercial value has multiple meanings depending on the purpose and circumstances,and so valuers operating in mature property markets should be aware of the standards which guide best practice.

3.4 Principles of value

The value of real estate is a 'tricky problem' with many diverse influencing factors. As Goddard put it in Baxter v. FW Gapp & Co 1938 (Crosby 2000: 131), 'Valuation is very much a matter of opinion'. However, demand and supply is the mechanism which drives market prices and valuation. Property prices and rents results from interactions between more or less informed parties with money who consider alternative substitutes. Other things being equal, if the supply increases, yet demand remains constant, rents or prices fall. If the demand increases but supply remains constant, rents or prices generally increase. If supply and demand increase or decrease proportionally, rents will remain relatively stable. However, government intervention can influence markets in the short and long term. For

instance, rent control legislation lowers prices in the short term but increases demand but creates shortages. In the long term, prices will rise. In short, the factors influencing demand and supply are influenced by policy and vary over time. The RVS obviously needs to reflect policy and capture indicators of demand and supply.

Principle of change

Places and markets can change dramatically over time. Therefore, the RVS must note space and capital market dynamics. Specifically, the RVS should note, first, neighbourhood evolution, development and regeneration and, second, stage in property cycle. In short, appraisers must interpret landscapes, understand social, political and economic forces and integrate these factors into the final estimate of value. Competent valuers in mature markets should engage with these changes by being well informed and engaging with the community and market institutions. (Spencer vs. Commonwealth 1907)

Principle of anticipation:

Value is driven by expected benefits as money or amenities, to be received from a property in the future rather than actual realised conditions. When buying a house, for example, the purchaser anticipates certain benefits that will be accumulated in future years. The purchase price is based partially upon the present worth of those anticipated future benefits (RICS 2017). The RVS or other information systems should provide detailed and updated planning, demographic and other reliable statistical information so that system players can make rational calculations (Huston and Elliott 2012).

Principle of substitution

When several similar or corresponding commodities, goods or services are available, the one with the lowest price attracts the greatest demand and widest distribution. This confirms the notion that when a property is replaceable its upper limit of value tends to be set by the cost of acquiring a similar and equally desirable property, provided there is no delay in making the purchase. There are

three alternative means of acquiring a substitute property: alternative purchase, construction, or another investment with similar risk and which produces a similar income stream (Huston and Elliott 2012). The implication for the RVS, is that clients and valuers need to make useful judgements about available comparables and upcoming projects.

Principle of Contribution

The value of any property element or its 'contribution' is measured by how it adds to the net income by reason of its presence, or deducts from the net income, or market value, by reason of its absence. In other words, the value of any factor depends upon its contribution to net income and not upon its cost. If an owner were to install AED 35,000 air–conditioning system, he should be convinced that net incomes can be increased to recover the expenses (ibid. 2012).

Principle of Competition

Despite market unbalances, excessive profits tend to cause competition which, in turn, tends to undermine profit margins of occupants. Competition usually improves property development and market operation efficiency, putting downward pressure on rents and prices (ibid. 2012).

Principle of Conformity

According to the conformity principle, land should broadly comply with existing standards of the area. Too much conformity, though, leads to monotony, which can undermine value just as much as its lack. Ideally, a residential area will offer a range of building styles but with the same degree of quality throughout. If properties in the same street are very dissimilar then the value of better property will be negatively affected by property of lesser value and vice versa – the value of the lesser property will be enhanced by proximity to better properties (ibid. 2012).

Principle of Consistent Use

This principle declares that when improved land is undergoing a transition to another HBU, it cannot be valuated with one use allocated to the land and another to the building or other improvements. The use of all real property components during appraisal must remain consistent (ibid. 2012).

Principle of Highest and Best Use (HBU)

HBU states that a property's value reflects not its current use, but that which generates the greatest net return over the predictable future. However, property may be put to any number of uses, some of which will be more profitable than others. When valuing a property, the valuer must consider different possible uses and decide which use will give the best result for that property (Highest and Best Use). The use that will give the highest possible returns having regards to all alternate uses of the land at a relevant point in time, and subject to that use being allowable under existing town planning regulations. Sometimes, property HBU may ignore the present improvements and consider demolition and replacement. At others, existing improvements must be assessed. Land on the outskirts of a town or city may be too expensive for rural pursuits but not yet ready for development into urban subdivisions. This is known as 'accommodation' land and when it becomes ready to be subdivided, it is known as '*in globo' (*sometimes spelt '*en globo')* land. Zoning or title restrictions can also obviously limit HBU (*The Appraisal of Real Estate* (2013)

3.4 Factors influencing residential value

Conventionally, to estimate value for or residential properties, and even for investment properties, valuers and analysts do not capitalise future income streams. Instead, residential value is usually estimated from comparables via slotting or other techniques (RICS 2017). Owner-occupied dwellings bring various housing services. Comfort and convenience for local amenities are more obvious housing benefits but other services include the status and pride of ownership.

McGreal *et al* (2012) used regional (city), neighbourhood and property level indicators to model the residential property value in Spain. Market dynamics and information asymmetry compound geographical and structural/design complexity. Cities are a 'complex jumble of independent but interdependent activities' (Storper 2014). The constituent elements of the RVS (institutions) are both macro (legal framework) and micro (regulatory bodies, real estate companies, banks). The RVS mechanisms are the administrative and governance processes, ethics and valuation standards (Anirudh and Shrader, 1999). Issues of formal and informal organizational and network architecture or structure (Putnam 1993) practices and cognitive social capital (values, beliefs, attitudes, behaviour and norms) are involved (Uphoff 2000). Social capital refers to trust, support and exchange of benefits that valuation stakeholders may or may not share (Bain and Hicks, 1998). Institutions within the RVS should securely keep detailed records of ownership, charges, easements and transactions. It should measure areas and boundaries and note conditions. In terms of practice, the RVS should refer to properly sourced standards. Ideally institutions and valuers should be independent, avoid conflicts of interest, have experience, expertise and objectively assess subject properties.

Market player's gather information about fragmented space markets, multiple geographical and building quality attributes to make price judgements. Any valuation systems must provide its users with quality information about complex spatial sub-markets and dwelling characteristics. Each urban area in the Emirates is distinct, as are intra-urban locales. Location attractiveness for buyers/renters is influenced by multiple positive and negative factors (status, socio-economic profile, climate risk, waste dumps, access to jobs and facilities, air quality etc.). Dwellings are also unique in terms of site, design, structure, energy-efficiency, area, views and cultural suitability to buyer segments. To determine MV, the RVS needs to evaluate locales and building/dwelling quality and assess its financial demand by various active market players. The information task is more challenging with unusual properties or when special purchasers are active but also because infrastructure influences values (Kitchin 2014). In fast-changing cities like Dubai, new malls or roads can be constructed very quickly. Planning permission or infrastructure announcements alter the risk landscape and signal

development opportunities or danger. Markets can also be externally disturbed. External influences include unpredictable financial, macro-economic or geo-political events and natural or man-made disasters (e.g. tsunamis or oil spills). The RVS should include mechanisms to monitor and distribute information about market conditions, liquidity fluctuations or sudden changes in capital market sentiment which can alter MV. As a result of shocks, valuations confront empirical data constraints or inconsistencies which can be compensated, but only up to a degree, by common sense and professional judgment. In short, markets are always dynamic and can become volatile.

Knowing the dynamic context, RVS players need to analyse the forces of change shaping values (Toivonen and Viitanen, 2015). Information restrictions undermine valuation reliability. In any event, the nature and source of information relied on should clearly be stated and attention drawn to any limitations. Keogh and D'Arcy (1994) emphasise significance of property market information flow as an indication of the level of maturity of real estate markets. When markets become illiquid and demand for quality RVS intelligence is critical, transaction data dries up, undermining empirical valuation support. Hence, RVS data quality (relevant, valid and timely) is critical. RVS assessment needs to test the environmental scanning (ES), decision support systems (DSS) and data integration architecture (human and IT). Market players seek data quality assurance, supported by the dissemination of robust empirical property data on fundamental legal frameworks, spatial and building characteristics and market dynamics.

3.5 Value components and value creation

The components of commercial real estate value are similar to those for any other economic good and include utility, scarcity and desirability, moderated by effective purchasing power and transferability (marketability).

- ***Utility*** is the power of a good to fulfil a need. For example, if A wants a house on two hectares and is prepared to pay 'X' for such a property but 'B', on the other hand, simply wants a suburban block, for 'B', the two hectare property holds little utility and so he or she will not offer much for it (Huston and Elliott 2012).
- ***Scarcity*** means a product is in short supply which raises its exchange value. At the same time, if a type of dwelling is easily available, its value tends to decrease. If a situation where there is a great oversupply of rental housing is considered, rent will tend to decrease. (ibid. 2012).
- ***Desirability:*** is subjective and drives prices, but only to the extent that it is supported by effective purchasing power. For rich people, strong desire makes scarcity irrelevant (ibid. 2012).
- ***Effective Purchasing Power*** notwithstanding their property desire, bankrupt purchaser (without effective purchasing power) have no impact on demand and are not market players (Bowie 2017)
- ***Transferability/Marketability.*** Property transferability is influenced by asset liquidity (ability to realise a sale quickly) and legal considerations. For example, if a top of the range home is located in a low socioeconomic area listed for sale at a price based on cost, it would be almost impossible to find a purchaser, because no one in that marketplace could afford such a property. Therefore, it is not transferable because there is no market for it. A more extreme example is land on the moon. No doubt if it could be legally purchased, many speculators would desire it but there is no market, because the land cannot be legally transferred (Reed and Sims 2014).

For land and property, value can be created through a process of legitimised enhancement. The process is embedded in property rights, usage coordinated through different institutions. In Dubai, value creation involves different states and role of government to regulate and control the market. A regulated, sustainable and transparent process is important to give investors' confidence. RERA coordinates, shapes and controls the whole process.

3.6 Court cases

Professionals working in the RVS need an understanding of the legal framework. Court cases illustrate some of the main valuation principles and in this section the thesis presents a few of the most significant; to illustrate the level of understanding expected from RVS professionals. Time limitations prevent a comprehensive review of the legal backdrop. In the previous dominions of the British Empire like the UAE, case law supports the valuation process with precedents provided from the UK, Australia, USA or elsewhere (Crosby 2000). As the concept of value is so important in the property industry, on many occasions the profession has tried to define it to eliminate any doubt in the interpretation of the term. However, as Sir Thomas Bingham pointed out in the case of *Banque Bruxelles Lambert SA v. Eagle Star Insurance Co Ltd [1995] 2 All ER 769* (Crosby 2000), the valuer 'does not warrant that land would get on the open market the value he puts on it any more than a medical practitioner warrants that he will cure a patient of illness'. For international best practice, the Australian courts offer a useful early definition of value in relation to compensation payable to a dispossessed owner. In *Spencer v The Commonwealth of Australia* (1907) value is consider to be, 'The amount of money realised in the open market by voluntary bargaining between the parties both willing to trade, but neither of them willing to do so that they would ignore any ordinary business considerations.' The Spencer Case highlights several essential principles, regarding the notion of 'value' such as that it is a purely hypothetical notion. Valuers are expected to be aware of the physical attributes and limitations of the land and about any legal disability but also conscious of the costs needed to bring the property to its maximum production. Buyers will not pay more than the closest competitor so that the valuation date is critical as well as potential future use (HBU discussed earlier).

The Spencer case raises a number of issues relevant to any valuation in a RVS which the thesis now considers in turn. The first relates to the degree of government involvement in sales. For in Spencer, the government obtained the

land and subsequently determined appropriate compensation. It was not, therefore, an open market sale.

The second issue relates to the date of valuation. In Spencer, post sale market evidence was thrown out of court whereas, today, sales after the date of valuation could be accepted where market conditions remained stable. Certainly, property valuations are date specific since conditions change. Usually, the valuer conducts his appraisal on the day the property is inspected. This allows the valuer to see the land, assess improvements and value them in the present market. It is harder to value a property retrospectively - that is at a date earlier than the date of inspection. Between the valuation date and the inspection date, changes may have occurred. The RVS needs to capture appropriate data on repainting, replacement, improvements or damage to make adjustments. However, valuation for a future date well after an inspection is unacceptable. Estimates of worth are fine but, in turbulent markets, RVS appraisers should not offer formal valuation reports. Third, the concept of a 'willing buyer and a willing seller' is problematic in depressed markets when in reality there are no buyers. The 'hypothetical buyer' notion allows the RVS to make a valuation based on what a willing buyer would pay from a willing seller, even though at the time of valuation, the buyer may not exist. It allows the assumption that if there was a willing buyer operating in the market place the value that a willing seller would accept would become the market value. The fourth court issue is the notion of an unreasonable 'bracket' (Crosby 2000) where a valuation is different from subsequent price that the valuation is considered negligent even if a proper approach was used. However, some judges consider that to prove valuation negligence, the court needs to find other 'corroborating evidence' of a procedural mistake. E.g. in *Baxter v. FW Gapp & Co Ltd [1939] 2 KB 271*, du Parcq LJ stated: 'Gross overvaluation, unless explained, may be strong evidence either of negligence or of incompetence.' *Singer & Friedlander Ltd v. John D Wood & Co [1977] 2 EGLR 84* is another example where Watkins J considered that, 'any valuation falling outside what I shall call the "bracket" brings into question the competence of the valuer'. In the recent case of *Tiuta International Ltd (in Liquidation) v De Villiers*

Surveyors Ltd [2016] the exposure for a negligent valuation extends to the full amount not just top up a re-mortgage.

Other supplementary court cases of interest for the design of an RVS include *Schiller v Kyeamba Shire Council [1933]* which is an agricultural example of valuation involving mixed grain and dairy property for unimproved value purposes. The decision was that improvements relating to a particular usage must be valued in relation to that usage. In this case, certain lands were valued as grazing land, but were in fact used as agricultural land. In this case, the agricultural improvements were not allowed as a deduction. This case highlights the principle of consistency. In the English compensation case of *Horn v Sunderland Corporation [1941]*, a claim was made for land on the basis of its subdivisional potential, at the same time full value for agricultural improvements was sought. The decision held that the value should be based on the higher of the two uses. This again supports the theory of HBU. On the other hand, in *Block Building Ringwood Pty. Ltd. v City of Ringwood [1967]* land had subdivision potential but its present use was not the HBU use. The court found that if the land was valued as subdivisional land (its HBU) then no loss of value in relation to a business on the property could be allowed. Where sales evidence is limited such as in Reading *v The Valuer General*, the Court considered a situation of using the market approach. The Court allowed the opinion of other people as to the value of the property to be considered. It suggested that sales evidence could come from other sources e.g. another similar small town and it also suggested that a previous opinion of value expressed by the valuer could be used as evidence. It is also very difficult to use this method for unique properties. With these properties, it is often necessary to go to another location looking for sales or use another method of valuation, such as cost, or if the improvement is income producing, then an income method may be appropriate, although these too rely on the market.

The conclusion from the collection of case studies investigated is that the RVS needs legal and property professionals who understand and can apply the legal issues which affect valuation.

3.7 Legal considerations for comparison

Over the years, the Courts have made rulings as to the acceptability of sales used to support property valuations. There are situations where a decision has to be made either to accept or reject a particular sale, and if there is a Court ruling regarding a particular situation, it will be highlighted in this section. Sometimes one may not be sure whether to accept a sale or not. It is easy to reject if you have a large volume of sales but if there are only a few, the tendency is to accept. One of the 'golden rules' of valuation is 'when in doubt, leave it out'. (Reed and Sims 2014).

Conditional sales

The contract of sale for these properties includes a condition that the sale is subject to another event happening. Most commonly it is that the sales depend on an application to the Local Council for a change of zoning being successful, e.g. the sale will only proceed if the current zoning as single unit residential can be altered to higher density residential. A simple example may be an application for the zoning to change to allow a block of flats or even a duplex to be built on land zoned for single houses only. The contract ends if the Local Authority fails to grant approval (Huston, S and Elliott, P 2012). It is considered that these sales can be useful, but the final usage is important and sets the market. Each sale must be looked at individually. You have to decide if the purchaser paid more for the property than would have been paid if the higher use was not possible.

Inter-relationship sales

Inter-relationship sale can be divided into two groups: family sales and sales of fractional interests. Family Sales are not always 'arm's length transactions'. These sales are often below market value, so it is considered that they are often based on opinion and not the market forces. Going back to the definition of Market Value, this value may not be 'realised in the open market' and 'ordinary business consideration' may not have been fully considered. An extension of this family sale is an inter-company sale. It is often quite difficult to find who is

involved in transactions involving related (subsidiary) commercial entities and it may be necessary to carry out a company search to verify an arm's length transaction. There are no specific court decisions relating to these sales, but traditionally they are not admitted under most circumstances.

3.8 Valuation purpose and bases

Valuations can be for many purposes, including valuations for financial statements, where the valuation needs to comply with International Financial Reporting Standards (IFRS) or for a regulated purpose for stock exchange documents, takeovers and mergers, residential mortgage purposes or commercial secured lending. Where no Red Book valuation standards is available, the valuer should adopt the general principles of the global standards and the specific requirements in the terms of engagement. The basis of value should be consistent with the valuation purpose and must be clearly defined and stated in the report. If the valuer uses another basis, this should be clearly stated in the valuation report. Understanding the importance of identifying the purpose and basis of valuation in any valuation report and making sure that it complies with valuation standards is a critical aspect of the RVS (RICS 2017)

3.9 Professionalism

Valuers consider that they belong to a profession and hence are expected to accept the responsibilities of a member of that profession. Chartered surveyors and valuers should act in the best interests of their clients, employers and the wider public interest. RICS (2017) guidelines instruct a number of measures that surveyors should adopt, including to deal fairly and openly with clients, reveal conflicts of interest, respect confidentiality and protect clients' assets. Surveyors also should act promptly, diligently and with due skill, keep their clients informed and update their professional and business knowledge to act within guidelines.

Valuers must be aware of their skills and abilities and only accept assignments within their competence. The valuer has responsibilities to the public and the profession as well as to the client. It is essential that valuers act responsibly towards all parties, and this requires that they be impartial, competent, independent, and professional in all their dealings. They must recognise their limitations and be prepared to seek other professional advice if necessary. The valuer is expected to keep proper records and to know about valuation and the associated laws as well as decisions implemented by the Courts (ibid). He must use this information in a professional and independent way. Continuous professional development requires study of evolving property markets and changes in consumer sentiment. Clearly, one area for RVS investigation is the professional competence and qualifications of staff, operating in the system to establish if they comply.

3.10 Valuation approaches: built areas

The RICS Red Book (2017) identifies three main valuation approaches but, within these several methods exist (See Fig. 3.4). Valuation is a process whereby professionals (called 'Valuers' in Australia, 'Appraisers' in America or 'Chartered Surveyors' in England) estimate the value of property by applying theoretical principles and practical knowledge to the relevant facts of the case. Theoretical aspects include economic understanding, urban insight, and land use patterns. Quality information, sound principles, property statute and case law or previous court decisions strengthen robust valuation. New technology can help to collect and organize diverse information about market and industry conditions, building construction techniques and regulations, town planning, and local government regulations.

Traditionally, there are three basic approaches and five valuation methods (Shapiro 1943; Rees and Hayward 2002) - comparison or market approach; the income approach which estimates the present worth of future benefits (implicit

income capitalisation or explicit discounting of rents or profits; and finally cost approaches, like the hypothetical development method.

The market comparison approach relies for its effectiveness on the principle that land is non-homogeneous, i.e. that no two blocks of land are the same. A property being valued is compared with other similar properties that have sold recently and is 'slotted in' where the valuer sees it best fits. Income or capitalisation valuation methods rely on summarising projected income streams allowing for risk. There are two variants, one focused on established properties with relatively steady income flows (direct capitalisation), and the other adapted to projects with variable cash flows which are discounted (DCF) to net present value (NPV). Direct capitalisation uses asset characteristics to capture risk. NPV identifies the opportunity cost of obtaining funds from various sources (Armyatys, et al. 2009). The usefulness of both techniques is limited by judgement and information quality. Direct capitalisation relies on the sensible selection of comparable buildings and suitable adjustment of cap rates while robust DCF depends on valid estimates of discount rates and future net income streams or resale profits. Small errors in capitalisation or discount rates can become magnified into significant valuation mistakes. The accuracy of income estimates requires clarity, carefulness and appropriate use of selective sub-market intelligence.

3.10.1 Comparison (market) approach

The comparison method has two modes: traditional (individual agent tracing and site visit) or Automated Valuation Methods (AVM). Although globally the traditional mode still dominates practice, AVM is gaining in popularity. AVM or 'mass appraisal' uses computerised decision support algorithms, based on a hedonic approach.

The hedonic model estimates the partial impact on value of a range of property attributes such as structure, height, location, area etc. (Rosen 1984; Brooks and Tsolacos 2010). These factors are then applied to the subject property to estimate its value. Legally, it is always best to value a property using the comparison

approach where relevant market information is readily available. Unfortunately, after a downturn or for specialised properties, such information is not always forthcoming. Comparison requires 'good sales evidence'. This means where many similar properties have sold around the time of the date of valuation. The volume of data should be large, as few sales could limit the accuracy of the prediction of value. It can be used in any situation (commercial, industrial, residential, improved or unimproved) if the above conditions are met. Obviously, it is a very useful method of valuation in urban residential areas where there is usually a large turnover of properties which provide good sales evidence. The Courts accept the comparison method as a primary method of valuation because it is based on sales within the particular real estate market, and reflects the realities of market behaviour. Where supported by a large volume of good sales evidence, it is most probably the least subjective of all methods. The comparison approach, however, has two defects. First, it is a historical market and does not take into account events that may happen in the future. Second, it fails where there are limited sales such as immediately after a crash when, valuation is most needed. Another limitation of the comparison approach is that identifying 'good sales evidence' requires judgement. Reasonable assurance is needed that it is all 'arm's length' but reliable information on the precise circumstances surrounding a sale is difficult and costly to obtain. Slotting involves inserting the subject property in between its peers where it best first because the greater the difference between the two properties, the less reliable is the evidence of the sale. Fitting depends on property characteristics such as physical structure, location and tenure. Factors which generally affect value include nature, size, and condition, improvements, block frontage, depth of a property, ease of access and facilities. Soil topography and vegetation are usually not important factors for urban valuation (although soil condition can influence building foundations). Steep blocks may be difficult to build on, but this is often compensated by the view. Knowledge of mortgage markets, geography, government policy, town planning, metropolitan strategies and regeneration is critical for informed valuation (Whitehead 2007; Healey 1997; Meen 1990; Meen 2012; Tallon 2013). First, zoning restrictions greatly influence values. Second, infrastructure projects can greatly enhance or undermine values.

Finally, planning trends towards green buildings and densification have significant commercial consequences. The valuer, therefore, has a professional obligation to keep up to date with urban plans and development news. While two properties may look very similar, their values could be hugely different depending on what is allowed to be built, e.g. a residence on one and a town house or unit development on the other. Increasingly, given energy and population pressures on cities, town planners need to incorporate vision into their strategic planning mix for the cities of tomorrow (European Commission, 2011) so that new development considers public transport, energy usage, and pedestrian accessibility (Alves and Ramalho 2011).

In many cases, the properties are actively marketed to selected groups from those larger towns and not from the local communities. The prices asked for these blocks are based on development cost and commercial profit and in some cases do not relate to the local market for similar property. Purchasers are driven out to the properties or meet the developer's agent on site. In many cases, the purchasers do not speak with local valuers or real estate personnel. In terms of Spencer [1907], it could be argued that in many cases, they are not 'prudent purchasers'. Because there are a large volume of sales because of the marketing strategies, an 'artificial' market is established. When these first buyers decide they want to sell, they have to rely on the local market, as they do not have the benefit of a large marketing organisation. In many cases, these buyers accept a lower price than the one they originally paid, and less than other current developer sales. This sets up two markets for the one development. Difficulties arise when the valuer is asked to value a property of a mortgagee in possession prior to a forced sale. While there is good evidence of developer sales, it is unlikely that this high level will be reached at an auction. This does not happen in all rural subdivisions, but one should be aware of this and fully investigate the markets in any area before attempting a valuation.

Traditional method: Dubai example in one of selected locales

Consider the case of a one-bedroomed flat in Dubai Marina, 110m^2 with 120,000 AED annual rental income potential with a pleasant view of the Marina. A

conventional valuation using the comparison method would select properties in the same locales with similar features and views towards the Yacht Club. Pedestrian access to the beach, age and building quality are all critical features. Valuers within the RVS need to access reliable data and recent about property sales in the area but they also need market experience to be able to understand the subtle changes in site position which can influence value.

Automated Valuation method: Dubai example in one of selected locales

Automated valuation approaches use mathematical models (formulas) to estimate prices based on comparisons. For example, many international firms operating in Dubai have their own in-house systems which work off a database of sales transactions to estimate the impact of area or floor level on property price. To compare similar flats in Burj Khalifa, an AVM will simply estimate the priced based on average contribution of all relevant characteristics. The valuer though needs to exercise caution if the subject property has any special feature which differentiate it substantially form normal sales. Flats with views of the Burj tower command a premium compared to those in the same locales but with a blocked view (see Appendix 3.1 DLD-AVM)

3.10.2 Cost approaches

The cost approach involves two methods: the depreciated replacement cost and Hypothetical Development Method ('HDM'), also and rather confusingly known as the residual or developer's method which is also classified as an income approach.

Depreciated replacement cost

Is a supplementary valuation method which is particularly useful for specialist properties with a limited market e.g. a hospital or mosque It relies on the principle that the value of the property will be reflected in the sum of all the costs or value of the components that make up that property. It is based on the

Principle of Substitution which suggests that no person would be prepared to pay more for a property than it would cost them to develop a similar and equally desirable one (Appraisal Institute 2013).

Its use as a primary valuation method which is restricted to redevelopment projects or heritage or characteristic properties or as a last attempt when sales are rare and the property is not generating any income. Examples of non-commercial 'one-off' properties include a museum or a mosque. All the costs of reproducing a similar structure (but not a copying it exactly) are gathered together and then depreciated to allow for age of subject building under consideration. There are a number of difficulties with the cost approach. First, land prices rely on comparison and confront selection issues. Second, detailed and reliable cost information is difficult/expensive to obtain. Finally, the determination of depreciation is subjective. It compensates for wear and tear; technological deficiency and general market fluctuations affecting the location.

The depreciated cost method is still a primary valuation method for rural properties without good comparisons (although increasingly large investors employ income-based models to value rural properties). Often farms have very diverse soil or rainfall characteristics or have specific improvements but comparison is usually made on a base level (fenced and watered land). Any structural improvements are ignored but, if there are more than one land type on the property, each is given a value/hectare. Subsequently, value for structural improvements is added. In effect, the approach is a summary of direct comparison and cost (Crosby and Wyatt 2016; Reed and Sims 2014)

The depreciated replacement cost method: Dubai example in one of selected locales

A mosque in Warsan cost AED 15m to build 20 years ago on land now worth AED 2m. Straight line depreciation over 35 years is AED 15m/35yrs = AED 428,571 annually gives depreciated replacement cost of around AED 8.4m as indicated.

Total cost	Annual depreciation	Accumulated depreciation	DRC
15,000,000	428,571	8,571,428.57	8,428,571

Reducing balance depreciation would take a fixed percentage charge annually on the reduced balance. E.g. 5% annually so charge for first year is .05 * 15 = .75m but for the second year the charge is less at 14.25 * .05 = 0.7125. Note this calculation ignores the heritage or sacred value of the site. Therefore, a valuer in the RVS needs not only a in-depth grounding in valuation approaches and computation capabilities but also needs to undertake proper due diligence on a subject property using available information systems and also use his profession judgement (metacognition) to appreciate the heritage or special value of iconic buildings.

Hypothetical development (developer's method also known as residual)

Also called the residual appraisal method is cost-based and can help assess the market value of land or land and buildings with more intensive / valuable use. Development must be physically possible, legally acceptable and economically profitable (Crosby and Wyatt 2016). Hypothetical development extends depreciated replacement cost technique to value land based on its future developed potential. Land value is estimated by working backwards from the completed project. Project costs, including finance charges and a reasonable profit, are deducted from expected re-development proceeds (based on market comparison) as per formula:

Land value = Estimated resale proceeds less all development costs, including finance charges and a reasonable vacant land profit margin (Shapiro 1943; Rees and Hayward 2002). The residual method is used when there are limited sales for comparison and the estimated value of the improvements is subtracted from the sale price to give a land value. As illustrated under 'Differences in Improvements' great care is needed here and errors can be significant if the improvements represent a significant proportion of the total value.

Residual method (embedded observation in DLD 2015-16): Dubai example in one of selected locales

A fully developed plot (1000 m^2) and units vacant land surround by buildings which have same plot size and features recently sold for AED 120m. Assume construction costs are 95m, including interest charges. Normal profit is 20% of construction costs. The hypothetical development value of the land via the formula: V= P- development and construction costs – normal profit. In this case, 120-95-(20% construction costs) = 6m. This low figure suggests that the market price is too low to justify land purchase.

3.10.3 Income approaches

The income approaches are less commonly used for residential valuation and are restricted to the valuation of investment grade properties. There are four income methods: implicit (direct capitalisation or Cap Rate), explicit (DCF), profits method and business multiples. Only the first two methods are relevant for residential property valuation and are therefore discussed in detail in the thesis. Investors look for under-priced entities/projects which can generate superior returns for the risks assumed but such opportunities depend on superior intelligence and swift action in imperfect markets. Investors will make a profit if the agreed price they negotiate is below the discounted realised stream of asset payoffs. Investors use a variety of indicators to judge asset quality. For indirect property investment, entity reputation, financial profile, credit rating and relative historical performance are matters to consider. For directly held property investment, building energy rating, developer reputation, design, size, age, structure and location are important quality indicators but, notwithstanding due diligence, future performance remains uncertain (Shapiro 1943; Rees and Hayward 2002).

There are obvious limits to forecasting. Projections beyond about five years are questionable, even in relatively stable sectors like power utilities. Unfortunately, even for cyclical property, discounting tools are sometimes credited with misguided notions of accuracy. In fact, forecasting techniques struggle to cope with turbulent conditions. New competitors or business models and technology can emerge 'in the perennial gale of creative destruction' (Schumpeter 1942: 83-84). In such tricky cases, assessing the value of entities and their portfolios of real project options relies more on business ability or seasoned commercial strategic judgement than spread-sheet details. Seriously imperfect models make over-optimistic assumptions about revenue growth and underestimate costs (including the cost of capital).

All investment is risky because asset control may or may not bring its anticipated profit and things can go wrong. Judging the future is tricky in imperfect property markets with infrequent comparable trades, asset diversity, and information asymmetry. Market uncertainty crystallises into risk on settlement. In modern market-economies, investors need financial incentives to trade certain current claims on consumption (money) for risky projects/entities (Malkiel 2015). In market systems, the compensation for future benefits is interest payments or future returns paid out as dividends, rents, or capital gains. Various tools can help investors, worried about potential losses, to judge the merits of an investment. However, there is debate about the extent to which markets are influenced by fundamental or behavioural factors (Minsky 1993; Schleifer 2000). Some investors supplement the analysis of historical performance with fundamental indicators of entity or project resilience and profitability. Specifically, a project (portfolio) should be 'worth the candle' or generate a 'surplus'. The best indicator of feasibility of risky projects is a positive Net Present Value (NPV) at the relevant cost of capital. In NPV or discounted cash flow analysis (DCF), future uncertain flows are shrunk, or discounted according to the general opportunity cost of investment, for the entity modified by the project's specific risk profile (Shapiro 1943; Rees and Hayward 2002).

3.10.3.1 Implicit (direct capitalisation or CapRate)

For direct property investment, capitalisation of lease net rents using a Cap Rate or Yield provides a quick and widely-used building or project valuation tool. Essentially, capitalisation is a rule of thumb to estimate building value from future rents by comparing them with the profile of similar buildings (grade and location). In a defined historical period, the relative rental profile of a building determines its value, predicated on comparable peers. The term and reversion method deals with rented commercial properties which with leases over several years. Each lease period is capitalised using the formula $(1-(1/(1+r)^n))/r$ and then if necessary discounted back to the initial time period. With lease contracts ongoing, a crash unsettles valuation sentiment before rents adjust and, hence, cap rates shoot up. The effect is to criticize new projects by undermining their value.

The formula for direct capitalisation of a perpetuity P (MV) = rent / CapRate = y/r, where y = annual net rent and r = the expected cap rate for this particular property sub-market. Net rent (y) is normally estimated using a reasonable sample of recent rents from comparable properties. The CapRate (r) is either generated from the sample or is derived from secondary literature such as market reports. Ideally, both methods should agree (Shapiro 1943; Rees and Hayward 2002)

The implicit method: Dubai example in one of selected locales

Investment grade one bedroomed flat in 3rd Theniah generates an annual net rent of AED 60,000 after service charges of AED 15,000. Assuming a yield of 7%, the property is worth 60,000/.07 = 857,142 = AED 857,000. Note this is a low figure because the income approach is not normally used for residential property, as it does not take account of capital appreciation.

DCF technique

When correctly employed, the Discounted Cash Flow (DCF) technique remains a useful technique within the analyst's toolkit. It is a fundamental analysis of a

project's commercial benefits under explicit assumptions about revenues, expenses and the market-determined cost of capital. In other words, the actual cost of finance to the developer is important. DCF models capitalise or crystallise the project costs and future anticipated free cash flows to get its Net Present Value (NPV), according to the formula below:

$$NPV = \sum_{0}^{n} \frac{y - c}{(1 + r)n}$$

When project NPV is positive, returns are sufficient to compensate various providers of finance at their different required rates, in line with standard finance theory (Modigliani and Miller 1958; Scharpe 1964). If a realised project NPV exceeds forecast, equity investors get extra gains since project returns exceed the weighted average cost of capital (WACC). If the project fails, equity investors are responsible for outstanding liabilities or debt.

The explicit method: Dubai example in one of selected locales

A building in Warsan consists of four floors. Annual costs of land are 5m AED. Construction cost AED 12m, begins immediately and lasts 1 year. Revenue = AED 1.5m annual income for the first five years with rent review to AED 2m. After 10 years the building is sold for AED 15m. Assume a target rate for equity investments of 10% (40% of finance), with bank lending costs of 4.5%. Weighted cost of capital = 0.4*10% + 0.6*4.5 = 6.7%. The project NPV is around AED 2m as illustrated.

0	1	2	3	4	5	6	7	8	9	10
- 5	- 12	1.5	1.5	1.5	1.5	1.5	2	2	2	17
NPV	2.028									

This simple practical example illustrates that the DCF approach has many weaknesses. First of all, future income streams remain uncertain unless lease contracts with high covenant strength are signed. Also, this method has to be implemented by capable people with metacognitive capabilities (Alter and Oppenheimer 2008; Crosby and Wyatt 2016)

To conclude this overview of the various valuation approaches and different methods, it is clear that there are a range of different valuation tools more or less appropriate for different situations. Valuers operating in the RVS, should have not only technical capabilities to compute value using formulas but also market experience and cultural sensitivities to understand the complications for each site and building. In short, professional capabilities and judgement or metacognition are important features for the RVS.

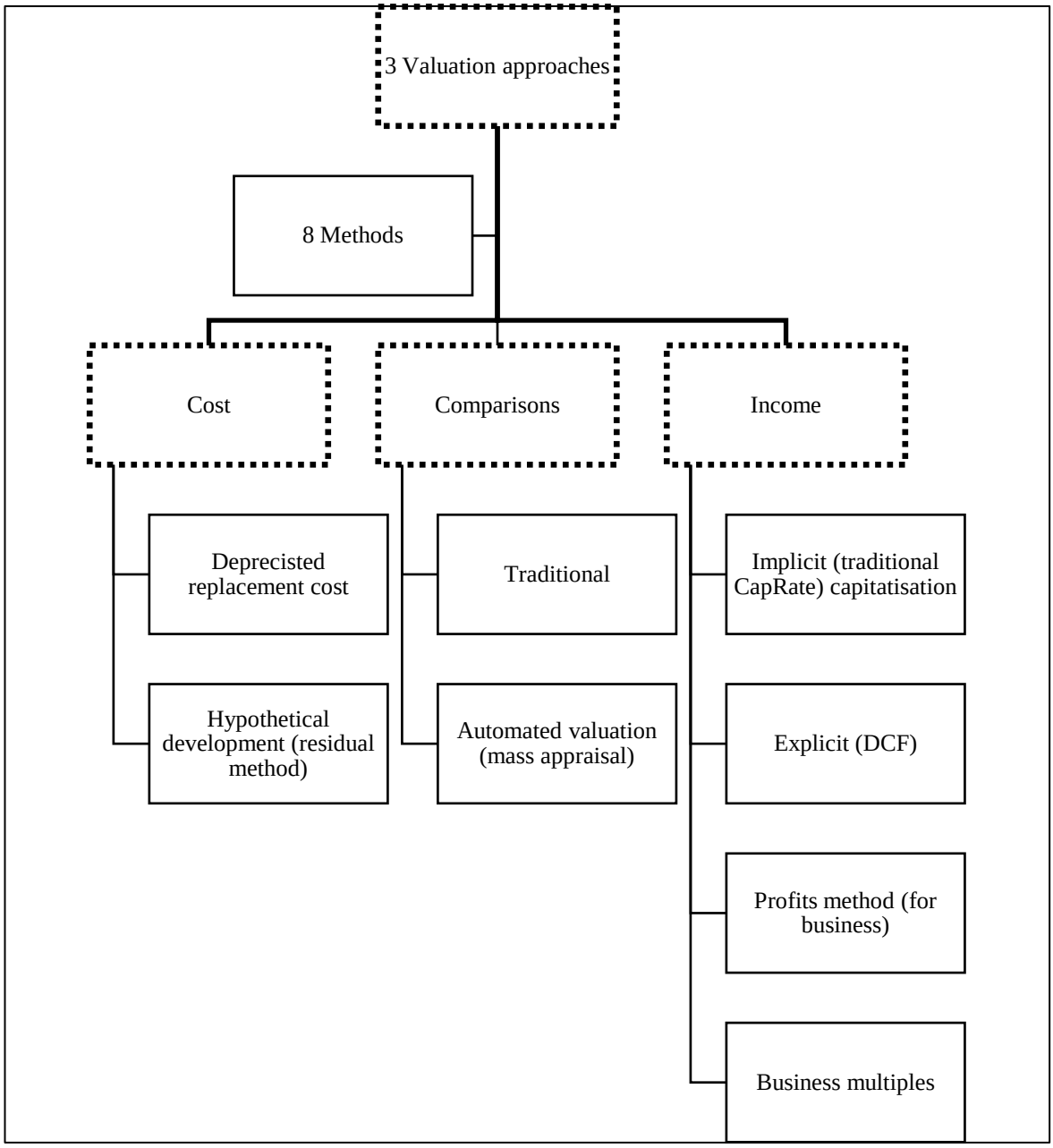


FIGURE 3.4: OVERVIEW OF THE 3 VALUATION APPROACHES AND SIX VALUATION METHODS (SOURCE AUTHOR, ADAPTED FROM RICS 2015, ACCESSIBLE AT HTTP://WWW.ISURV.COM/SITE/SCRIPTS/DOCUMENTS.ASPX?CATEGORYID=1024, ACCESSED 05/02/2015)

3.11 Valuation methods: vacant land

In developing nations and fast-growing cities like Dubai, much vacant land is converted into iconic projects. Therefore, an understanding of the issues surrounding the valuation of vacant land is important, particularly *englobo land*, or land which can be converted from farmland/desert into magnificent projects such as Nad Al Sheeba. Before investigating specific Dubai examples, this thesis will review the general methods. The general bases on which vacant land valuations can be made are listed below. The first four of these methods are based on comparison with sales. The fifth example relies on cost of improvements being subtracted from the sale price. These examples illustrate how important it is to consider how land is sold, and to apply the same method to your valuation. A variety of features could influence the value of a block of vacant residential land. The list below provides some guidance but is not definitive.

TABLE 3.1 SOME OF THE FACTORS INFLUENCING A PURCHASER OF VACANT LAND (SOURCE AUTHOR 2017)

Shape	Depth	Aspect	Detrimental factors
Location	Area	Soil Types	Topography
Frontage	Views	Amenities	Neighbourhood
Educational Facilities	Roads	Ethnic Groupings	Corner Influence
Religious Facilities	Transport	Shopping	Environmental Factors
Potential	Rear lots	General Development	

In the Block basis, Blocks should be valued 'as they are bought'. In Australia, for example, residential land is bought on a block basis rather than a square metre basis. An urban block of 800m^2 may only be marginally more expensive (if at all) than one of say 600m^2 as long as it meets the need for the purchaser to build. The decrease in value for the smaller block will not be proportional to the area. In other countries, where land is scarcer, this may not be the case, and therefore one should always consider the market and its characteristics before commencing a valuation. Similarly in a rural residential subdivision, a two hectare block would not normally sell for twice the price of a one hectare block, given that other characteristics are the same. These blocks are valued by comparison with sales as discussed earlier. While it appears to be a simple method of valuation, it requires a great deal of experience and judgement from the valuer. All the characteristics of the block have to be considered in the valuer's judgement, as well as taking sales into account. Unlike other methods, there are no mathematical calculations (Pyhrr et al. 1989).

In the Area basis, Industrial and commercial sales are usually sold by the square metre and rural properties by the hectare. These properties depend on the land for their income or productivity and hence the land area is very relevant. Other considerations for land are the type of improvement planned, because the plot should suit the purpose e.g. a purchaser of land to be developed into a retirement village would not want an isolated site or a site with bad access. Affordability is another concern because the buyer must either have the money to buy, or be able to raise finance. This could restrict the number of vacant blocks that the purchaser could consider buying based on the amount of money that a lending organisation is prepared to lend. In most cities, including Dubai, markets differ from district to district, but usually one can find that there are many buyers up to a certain ceiling. However, some land suits the individual needs of a purchaser while other plots do not, and so the fair value of any block must fit the needs of the purchaser, subject to other restrictions – such as finance (Estrada 2011). The value of a particular site will be impacted by available alternatives. Before buying a block of land at a particular price, a prudent purchaser will consider all the available alternatives and it may be that another block, while not having all the required properties, could be a better buy for the particular use. Obviously, planning issues (Crosby and Wyatt 2016) greatly affect the value of any plot, so the prudent valuer needs to consider local authority requirements. Restrictions placed by local authorities can also influence a purchaser in selecting a block of land. All local authorities have town plans which outline zones, where different land uses are permitted. Therefore the 'ideal' block may be in an area where the type of improvement that the buyer has planned may not be allowed. Other restrictions can be found relating to frontage to depth ratio, minimum frontages, and frontage/area ratios. Councils can impose modifications to improvements before approving a building plan. These could include road updates, supplying water or sewerage, or providing car parking (Rees and Hayward 2002; Pyhrr et al. 1989).

3. 12 Implications for RVS draft explanatory framework

Chapter 3 reviews systems theory, the different types of values and the factors and court cases influencing them. From systems theory, the RVS will involve the interactions between different stakeholders and institutions with various feedback mechanisms like price signals, analytical reports, vacancies, transaction databases, statistics and other market data. The chapter has examined three different valuation approaches for built areas (cost, comparisons and income) and various methods. Clients need to communicate to independent valuers the purpose and basis of a valuation. Valuers need to apply appropriate standards and use suitable valuation methods. The thesis finds that the RVS needs competent and capable valuers to cope and address the uniqueness of each case due to the different aspects of each project or property. Further complications relate to specific legal issues, some of which were dealt with in Chapter 2 but also here in this chapter. The valuation of vacant land is another issue which complicates valuations for development projects. Clearly, the RVS needs significant amounts of reliable information, well-known standards, qualified and trustworthy people, with some metacognition capabilities for more complicated cases. Valuations or other market outputs (valuation and analyst reports, client advice, and registration fees assessments) need to be checked and filtered so that they are reliable and can be trusted. Now the thesis draws together these insights and applies them to design a draft RVS assessment framework.

3.12.1 RVS System

Having reviewed the general systems and valuations literature, the research now applies these findings to generate a draft explanatory framework or operational phase toolkit to evaluate the current state of the UAE-RVS. The assessment of a valuation system will involve considerations of its constituents (entities), processes (valuation standards, professionalism, governance and administrative

procedures) and the reliability of its outputs (valuations). Any RVS comprises many interacting institutions that operate in complex and evolving urban environments. The degree of market complexity, volatility and information asymmetry varies. In addiition, RVS institutions should function for the public good via tight governance to avoid 'Agency Problem' (Eisenhardt 1989) and for data integrity, such as accurate and detailed records of ownership, charges (easements) and transactions. The RVS needs to measure and record areas and boundaries and note conditions. In terms of practice, the RVS should refer to properly sourced standards. Institutions and valuers have a fiduciary duty to objectively and independently (without conflict of interest) value properties. Entities involved in the registration and valuation process (market players) in the different Emirates need to be properly and independently accredited.

UAE residential property markets, like others (Ch2), are fragmented. Multiple spatial, functional and structural factors support segmentation that involves a complex interaction between administrative boundaries, land tenure, building quality and evolving location characteristics. Often, the announcement or emergence of new mega-projects unsettles markets. In short, the UAE Residential Valuation System confronts multiple challenges to collect, filter and analyse relevant information in unstable capital and spatial markets which are both complex and dynamic. A robust residential valuation system (RVS) helps to develop property markets and can mitigate the risk of unhelpful volatility, speculative excess or investment mistakes. The system includes boundaries, elements (stakeholders, institutions), processes (valuation practice and standards), outputs (registration, valuations, and market reports) and feedback mechanisms (information flows and price signals). The RVS should properly record ownership, document transactions, transfer titles, evaluate risks and provide reasonable valuations. A robust RVS increases market transparency and facilitates appropriate private and public investment. Ultimately, it strengthens urban area resilience to multiple pressures (strategic, hydrological, technological, demographic, financial and climatic). The critical RVS output is trust, substantiated by registration clarity (property title, tenure, encumbrances, and

boundaries), jurisdiction-dependent standards and credible valuations. Local valuation practices engage with International Valuation Standards (IVS) produced by the International Valuation Standards Council (IVSC) but cultural and operational issues mean that valuations can differ widely. In the UK, market value (MV) is distinct from investment value (IV) or mortgage valuation for banks but all are opinions. Institutional capability and supporting evidence condition valuation reliability. Hence, to benchmark a valuation system involves assessment of valuation reliability (output), available intelligence and institutional capabilities (technology, HR, administrative and cognitive abilities). High levels of trust and widespread dissemination of valuation standards provide further support for system robustness. (RICS 2011)

Any RVS comprises interacting institutions that operate in complex and evolving urban environments (see Ch2). The degree of market complexity, volatility and information asymmetry varies. Ontology refers to the physical constitution of fragmented markets where consumers attempt to process information and combine multiple geographical and building quality attributes. Any RVS confronts complex ontologies in terms of spatial sub-markets and dwelling characteristics.

In most jurisdictions, local valuation practices engage with International Valuation Standards (IVS) produced by the International Valuation Standards Council (IVSC). Nevertheless, the RVS should be transparent, flexible and reliable. Cultural and operational issues mean that valuation standards and practices can vary by jurisdiction (RICS 2014). The RVS must provide reasonable valuations. Crosby (2000) makes the useful distinction between ‘valuation accuracy’, ‘valuation variation ‘and ‘valuation biases’. Valuation accuracy is ‘the ability of the valuation to correctly identify the target’ (ibid. 131), whilst valuation variation arises when different valuers get divergent results. Valuation bias is where valuations are consistently over or under target. The

determination of RVS valuation accuracy provides some evidence of market maturity. The thesis then collects evidence on valuation standards and valuation protocols in use. Practice observation and player discussions should establish whether the UAE-RVS collects useful spatial and dynamic intelligence. The research looks for indicators of good practices such as environmental scanning, information systems or meta-cognition.

3.12.2 Critical RVS features

The literature review on property heterogeneity, spatial market complexity and property cycles (Ch2) as well as here in Ch3 on valuation methods, standards and systems suggests that critical features for a reliable RVS include robust information systems, professional capabilities, and administrative competence, trust and valuation standards. The Red Book (2014: PS2 3.1) terms of professional competence supports this analysis of key RVS features: Appropriate academic/professional qualifications which demonstrate technical competence (CAPABILITIES) and/or membership of a professional body (such as RICS) which demonstrates some commitment to ethical standards; sufficient knowledge about asset class, demonstrated by skills and local, national or international market experience (TRUST); compliance with legal regulations governing valuation practice (STANDARDS). However, these aspects of market maturity are not fixed and there is no blueprint for a mature market as each market can evolve separately (Keogh and D'Arcy 1997 and 1994).

TABLE 3.3: CRITICAL RVS FEATURES OR ROBUSTNESS ASSESSMENT CRITERIA

[SOURCE AUTHOR (2015), ADAPTED LAMBERTON (2005)]

Area	Details
Output	Reasonable valuations and regular market reports
Information	Data securely and systematically captured to provide necessary valuation details including valuation base, date, location, legal matters (title, lease, and encumbrances), property characteristics and conditions.
Capability	Governance, transparency (auditability) Competent people support completeness, accuracy, relevance, comparability, clarity, neutrality. Admin. Valuation purpose (base) and date (e.g. MV, IV, RV, MGV or fair value). If not market-based, valuation and price can differ. If fair value, specify one of two recognised definitions (IASB 2013 in IFRS[1] 13 or IVSC[2] in IVS Framework paragraph 38). Technological adaptation Meta-cognition or ability to solve complex problems
Trust	Stakeholders can run enquiries or data analytics (descriptive stats, performance indicators, valuations).
Standards	Valuation standards are disseminated and used professionals conduct valuations who are knowledgeable about scope, (period), materiality, measurement, prudence.

[1] International Financial Reporting Standards
[2] International Valuation Standards Council

Table 3.3 illustrates that five aspects central to the proper functioning of a RVS:

- Reliable **output**
- Information systems
- Institutional **capabilities** around governance, administration, human resources (professional people) and technologies (DSS, GIS, AIS)
- Stakeholders should **trust** the system
- Valuation standards and principles are widely disseminated or **salient** in the system.

RVS institutional capacity involves collecting, registering, categorizing and integrating diverse intelligence sources on property markets and values (Lamberton 2005). Relevant operational indicators of intelligence capability could include, for example, the application of spatial decision technologies such as GIS mapping for property registration, taxation, utilities charging and boundary dispute resolution. A modern RVS should make use of remote technologies to conduct desktop research for registration, due diligence, mass appraisals or locales quality criteria for planning. To supplement mass appraisal, qualified professionals (surveyors) should undertake systematic site visits to measure subject properties, establish condition and record key features or encumbrances. For MV determination, grounded evidence supports the selection of appropriate comparable properties (similar recently sold or leased premises). Practical indicators of RVS institutional capacity could involve: documenting the technologies utilized, recording surveyor qualifications, observing or questioning practice.

Indicators of RVS intelligence capabilities regarding market dynamics could include the use of advanced modelling techniques to inform cyclical determination (Heps and Vatansever, 2011).

3.12.3 RVS Principles

Valuation is not an exact science but is based on the opinion of informed and professional valuers. Quality information is central to the proper functioning of

the RVS. Having now reviewed the real estate literature in Ch2 and the systems and valuation sources here in Ch3, the thesis distils five principles (shown in Figure 3.4) for a balanced RVS evaluation.

FIGURE3.5: RVS PRINCIPLES FOR A ROBUST RESIDENTIAL VALUATION SYSTEM (DRAFT EXPLANATORY FRAMEWORK). [SOURCE: AUTHOR 2016]

3.13 Conclusion

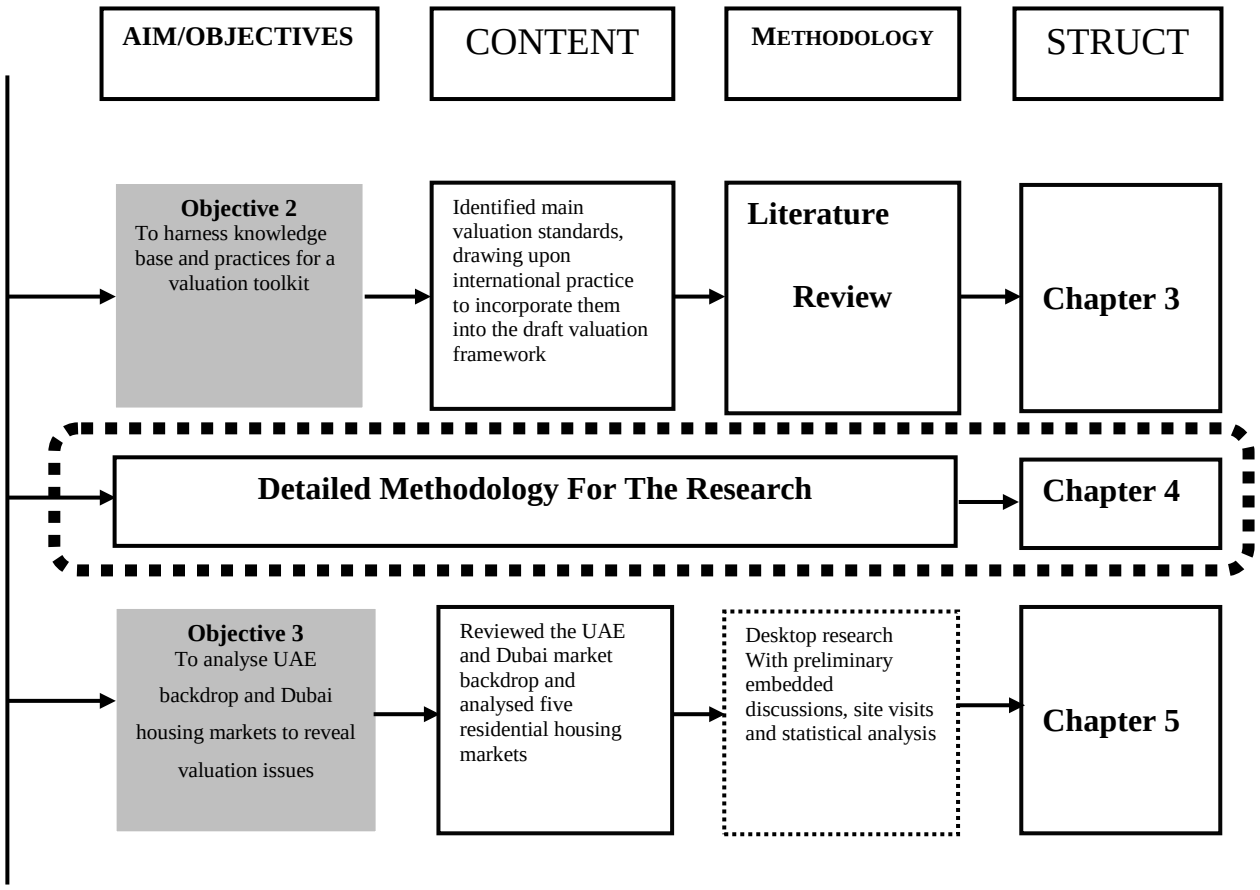
The first and second chapters of the thesis noted the importance of a sound valuation system to regulate imperfect, complex and segmented real estate markets. The Emirati property market is developing in an unstable region where valuations are influenced by fluctuating oil prices, large capital flows, segmented markets and transformational mega-urban development projects. In Chapter 3, to tackle the second research objective and to develop a draft explanatory framework, the literature review on systems and valuation have been reviewed. Systems theory points to RVS output and feedback mechanisms, boundaries, components (entities), relationships, procedures such as current global valuation bases, practices, standards and methods. In the valuation literature dealing with types, three approaches and six methods found that reliable valuations require information to clarify 'market', 'investment', 'fair', 'mortgage' or other valuation base, a body of law, transparent regulation, and tightly governed competent institutions and well-known standards. Courts facilitate system coordination and support trust. Chapter 3 concludes that a robust valuation system is characterised by five RVS principles. Not only must it deliver reasonable valuation output, but also the RVS must also have procedural integrity indicated by information richness, capabilities, trust and standards salience as illustrated in Figure 3.4 above. These RVS principles answer the second research question of the thesis: '*What are the key features for a robust residential property valuation system?*'.

The five key features for a robust valuation system are:

- Reasonable valuation output
- Intelligence systems which provide a rich information field
- Institutional capabilities in governance, administration, human resources and meta-cognition and supportive technologies
- General confidence or trust amongst stakeholders (system relationships)
- Salient valuation standards

The task for the next chapter of the thesis is to design a structured research methodology to gather sufficient relevant and reliable evidence to determine the current situation with respect to these five RVS principles. As suggested by the second chapter, the research design should also enable reflection about the wider Emirati conditions to confirm conclusions, consider cultural complications and operational difficulties. Looking ahead, subsequent thesis chapters will examine factors such as valuation dispersion (outputs), information flows (inputs), institutional capabilities (entities), stakeholder trust and the role of valuation standards (relationships).

Chapter 4: Methodology



4.1 Introduction

The study has noted concerns with the Emirati valuation system in Chapter 1 and has considered aspects of real estate markets in Chapter 2 and valuation standards in Chapter 3 to develop a draft explanatory framework. The framework structured research into an appropriate residential valuation system for the United Arab Emirates around five key valuation system principles. This Chapter 4, explains the research philosophy, design, phases and data sources used and collection methods to provide a convincing explanation of the phenomena.

4.2 Research philosophy

In research, it is important to adopt a philosophical position, formulate a research question which is important and fills a gap in the literature (Wiersma and Jurs 2005). Research philosophy relates to the world-view that informs the research approach. It decides on what is the nature of reality and the best approach used to investigate it (Blaikie 2000).

In simple terms, researchers often divide philosophy into three paradigms or 'world views' which can generate tension between academics (Kvale 1996). In positivist, scientific or post-positivist paradigms reality is something which exits 'out there', independent of observers. In contrast, in an interpretive, phenomenological or constructivist paradigm, agents create their own social reality with meaning, influenced by culture.

4.2.1 Post-positivism (scientific) model

Researchers adopting a positivist or scientific paradigm assume that reality exists 'out there' and rely on careful measurement of thousands (ideally) of statistically robust observations to reliably capture it. Epistemology considers the nature of knowledge, its sources and limits and how best to investigate phenomena in the world (Easterby-Smith *et al.* 2008).

4.2.2 Constructivist (interpretivist) model

In contrast, an interpretivist or phenomenological approach suggests a more changeable reality that is, more or less, socially constructed. For Denzin and Lincoln, (2003) it is important to discover the contextual factors that influence the views or multiple realities of different individuals. Research should focus on understanding what different actions or phenomena mean for different cultures or individuals which are highly contextual and not generalizable (Saunders, Lewis and Thornhill, 2007). It is associated with open-ended interviews, embedded observation and other qualitative approaches to data gathering (Eriksson and Kovalainen, 2008).

4.2.3 Pragmatic worldview

Actually, the philosophical backdrop to research is much more complicated, as Figure 4.1 illustrates. Pragmatic or critical realism can perhaps be considered a third way where there is reality but its interpretation can vary widely and explanation comes from a blend of statistical correlation but also understanding the instability of human motivation and institutional drivers.

FIGURE 4.1: DETAILS ON WORLDVIEWS (CRESWELL 2009)

As an alternative to these extremes – in agreement with Yin (1995) and illustrated in Fig. 4.1 above - the research has adopted a pragmatic or 'critical realist' perspective and using both qualitative and quantitative methods. In this pragmatic view, facts exist independently of human observation which can be scientifically measured. However, social interpretation of meaning is the only way to really explain actions.

4.3 Alternate approaches

In a pragmatic paradigm, many quantitative and qualitative methods are generally used as illustrated in Fig. 4.2 below.

FIGURE 4.2: STRATEGIES OF ENQUIRY AND FIVE QUALITATIVE METHODS (CRESWELL, 2009)

Fig. 4.3 provides further details about the methods which can vary by the degree of determinism, questioning and data handling approaches.

FIGURE 4.3: DIFFERENT RESEARCH METHODS (CRESWELL, 2009)

4.3.1 Quantitative (deductive)

Quantitative methods provide precise and testable expression to qualitative ideas. Quantitative data is any data that is in numerical form such as statistics, percentages. Quantitative research is the systematic empirical investigation of observable phenomena via statistical, mathematical, computational techniques or mathematical models. The approach can involve exploratory or confirmatory deductive investigations (theory is suggested and hypotheses tested). Researchers use theory to define concepts and then operationalize variables as indicators which can be measured or observed. Scientific measurement strengthens quantitative research as it connects empirical observation and mathematical expression of quantitative relationships.

This research uses quantitative techniques to analyse secondary data in the analytical review of the UAE economy. For example, the rates of growth of GDP and population were analysed and interpreted. The dependence of government revenues on fuels was noted but also the diversification of the economy. Simple descriptive statistics on liquidity and other factors influencing housing demand

were also considered. Dubai housing prices were charted and the implications for valuers operating in a mature RVS to consider housing cycles were noted.

Quantitative techniques were also used in the statistical analysis of the thousands of DLD residential property transactions. For its quantitative analysis, the research ensured that data came from an apparently reliable source (DLD) but cleaned the data to eliminate missing cases, meaningless figures (apartments with 0 area) or obvious outliers such as top end apartments in Burj Khalifa and Dubai Marina. Once the data was cleaned, exploratory statistical analysis, neighbourhood analysis and hedonic regressions were run using SPSS. Hedonic regression is a quantitative technique (mass appraisal) used in the research to evaluate the impact of a limited number of quality variables such as location and floor level and apartment size on price.

Although the Focus Group Meeting mainly relied on qualitative interpretations of discussion by experts, the counting of codes (theme nodes in NVivo) for the Framework Analysis has some quantitative aspects.

4.3.2 Qualitative

Qualitative research is the examination, analysis and interpretation of observations for discovering underlying meanings and patterns of relationships, including classifications of types of phenomena and entities, in a manner that does not involve mathematical models. For example, surveys and experiments are frequently considered as quantitative research and whilst case studies are associated with qualitative research. Yin (1994) notes that case studies can employ qualitative or quantitative data collection methods. Marsh (1982) argues that quantitative surveys / techniques can provide additional useful information and explanations that are `adequate at the level of meaning'. However, the evidence collected should be convincing and impartial to evaluate alternate hypotheses for a particular phenomenon. Initial quantitative data explorations or Exploratory Data Analysis (EDA) were used in the research during the analysis of the interviews to summarise main data characteristics (scale scores) which were

displayed using visual methods. EDA also informed the analysis of the Focus Group Meeting in order to determine, based on the draft explanatory framework, which of the scenarios best fits the Dubai valuation situation.

As well as supporting the scenario assessment, the qualitative interviews and Focus Group Meeting (FGM) also enriched the research on valuation systems to discover whether there were any overlooked issues. In this research, the qualitative methods dug deeper into the valuation processes to understand its social meaning and the limits faced by system agents - such as expert valuers or other professionals. In this research, qualitative interpretation took place during several phases. In the embedded phase, grounded theory (observation and discussion) was applied. Other qualitative methods included site visits. In the interviews, transcripts with various stakeholders in the construction and property sectors were reviewed to investigate the specific valuation issues relating to the draft framework faced by different stakeholders. Finally, in the FGM, Framework Analysis and exploratory techniques such as word clouds helped extract hidden issues. The first qualitative element of the research involved Web-based review to gain an overall understanding of housing markets in the Emirates and the Residential Valuation System via the websites of Dubai Land Department and DM as well as different real estate agents and platforms operating in Dubai, such as JLL and Savills and Redin. The web-based review sought to capture all relevant information about the RVS the market in Dubai and the RVS provided by reliable organisations and bodies. The main researcher scanned the posts on social media platforms, particularly the DLD Instagram account looking for disputes in valuation and the current needs of the system in terms of data dissemination, procedures, standards or transparency. Overall the qualitative web-based review provided a useful backdrop in terms of valuation policies and standards, key development projects (for case study locales) and main RVS stakeholders (for interviews and FGM).

The embedded research adopted aspects of Grounded Theory (GT) to structure its qualitative inductive approach. The main researcher was embedded in DLD on and off over a three-year period and worked up from facts (Glaser and LeviStrauss

1967). For this research, facts were gathered by attending meetings, observing valuations cases, recording market prices, checking title records, valuation inspections and certificates to gain a real understanding of the system from the inside. In contrast with the later deductive closed-end questions in the interviews, in GT phase at DLD (and other organisations), the researcher had no fixed idea of what were the main problems and valuation issues before he visited them. Instead he sought to understand the culture and market sentiment and dynamic without relying on theory generated from literature. For GT, the key questions were to discover the substantive issues (like independence or metacognition or complex projects) behind valuation incidents to find out what is actually happening. Although the main unit of analysis for the research was the Residential Valuation System (RVS) in Dubai, for the GT (embedded research at DLD), the focus was on incidents such as disputes in the Dubai Land Department Appraisal Committee (DLDAC) about specific property sales, valuations or appeals (see Appendix 4.1 for some examples of appeals incidents). The GT helped to shape understanding and to inform the draft framework, but also foreshadowed some of the issues which emerged later during the interviews and FGM. In other words, these appeals, disputes about documentation and the real concerns of DM participants all represent some deeper issues and bring attention to potential issues or workable improvements in system which were refined during later research phases as new relevant data emerged from various other sources. The GT codes were modifiability, key data anchors and helped to develop the valuation principles, scenarios and concepts for the draft and later refined the explanatory framework. Analysis involved constant comparison of data with ideas via substantive codes to summarize empirical evidence. The provision of maps helped to identify the case study research locales but also provided some assurance about system capabilities. Repeated embedded observation of valuation procedures helped to cultivate relationships to enrich the research.

The third qualitative method was the case study site visits which contributed to knowledge of sites and spatial phenomena (Yin 2003). Case studies provide a range of different evidence, embedded in particular site settings (Gillham 2000). Five different locales were selected based on preliminary embedded discussions in

DLD which shared common attributes (minimum quality attributes, demand and open to foreign investment freehold) but were also distinctive markets to ensure that the finding of the research were generalizable.

The fourth qualitative method was the stakeholder interviews, sampling was not statistical but 'pragmatic' and emerged from contacts during the embedded research at DLD. The approach was adapted from David and Sutton (2004) who favour a snowball selection process for interviews and suggest intensive interviews with both experienced individuals within an organisation (gatekeepers) and informants to generate deeper access. The main researcher coordinated with HR in DLD to draw up a suitable list of interviewees. The aim of these interviews was to gain a better understanding of the exiting RVS in Dubai. The following issues were key areas of exploration. Capturing the key issues in the evolving market situation, implications for valuers in the complex and changing system and whether the draft framework really reflected the realities on the ground for different stakeholders.

The final qualitative method was the Focus Group Meeting (FGM) which sought to confirm the interview findings and enrich the research. David and Sutton (2004) argue that asking a group of experts to debate topics is more fruitful than interviews. FGM can generate spontaneous comments and ideas and allow the researcher to observe group dynamics and uncover institutions issues (Nielson 1997).

4.4 Research design

Research design selects an appropriate research philosophy and the logical structuring of the inquiry (methodology), without prescription particular data collection methods (Creswell 2009). Indeed, the methodology may prescribe several methods to either investigate the research field (with an inductive approach) or collect evidence to answer the question (in a deductive one). A structured and impartial investigation gathers a range of appropriate, targeted

convincing evidence for a balanced answer. Evidence should be impartial and not focused to confirm a particular theory or explanation. Indeed, the research design should collect evidence potentially relevant to competing explanations to decide which of the opposite explanations is the most empirically convincing. Whatever the design selected, research should contextualise the situation and provide impartial evidence to answer the research question convincingly. The research noted that valuation system malfunction is a serious rather than a minor matter because the resources of investors and residents can be wasted. The task for the research is to establish a balanced view on the current Dubai- RVS situation. The review of various research philosophies and theoretical approaches, informs research design.

The research philosophical approach adopted, the methodology (methods, data capture and analysis tools) address the main question (Ch1,) and subsidiary research problems. The thesis adopts a pragmatic mixed research methodology design where inductive techniques helped to generate an explanatory framework which was sequentially investigated and enriched using mixed methods. A deductive framework drives its exploratory examinations and its operational investigations while an open-ended (inductive) interview and focus group meeting discussions enrich the research. The semi-structured survey instrument comprises deductive questionnaires and a more open-ended (inductive) interview section. The deductive method makes use of Likert scales to obtain ordinal data. The open-ended questions give respondents ability to express themselves more freely in the event that overlooked issues emerge inductively.

The third chapter refined the real estate, system and valuation literature to determine the five critical valuation system principles (Ch3) which must support any explanatory framework. The thesis operationalized these five RVS principles via a scenario to generate an explanatory framework. Once the level of system valuation accuracy (outputs) was determined via web-based review, embedded discussions and exploratory statistical analyses, mixed evidence for the other RVS principles were considered. Due to the mixed approach, involving many different sources of information, the research design minimized the chance of drawing

incorrect causal implications from unreliable or irrelevant data. Figure 4.4 below illustrates the research design.

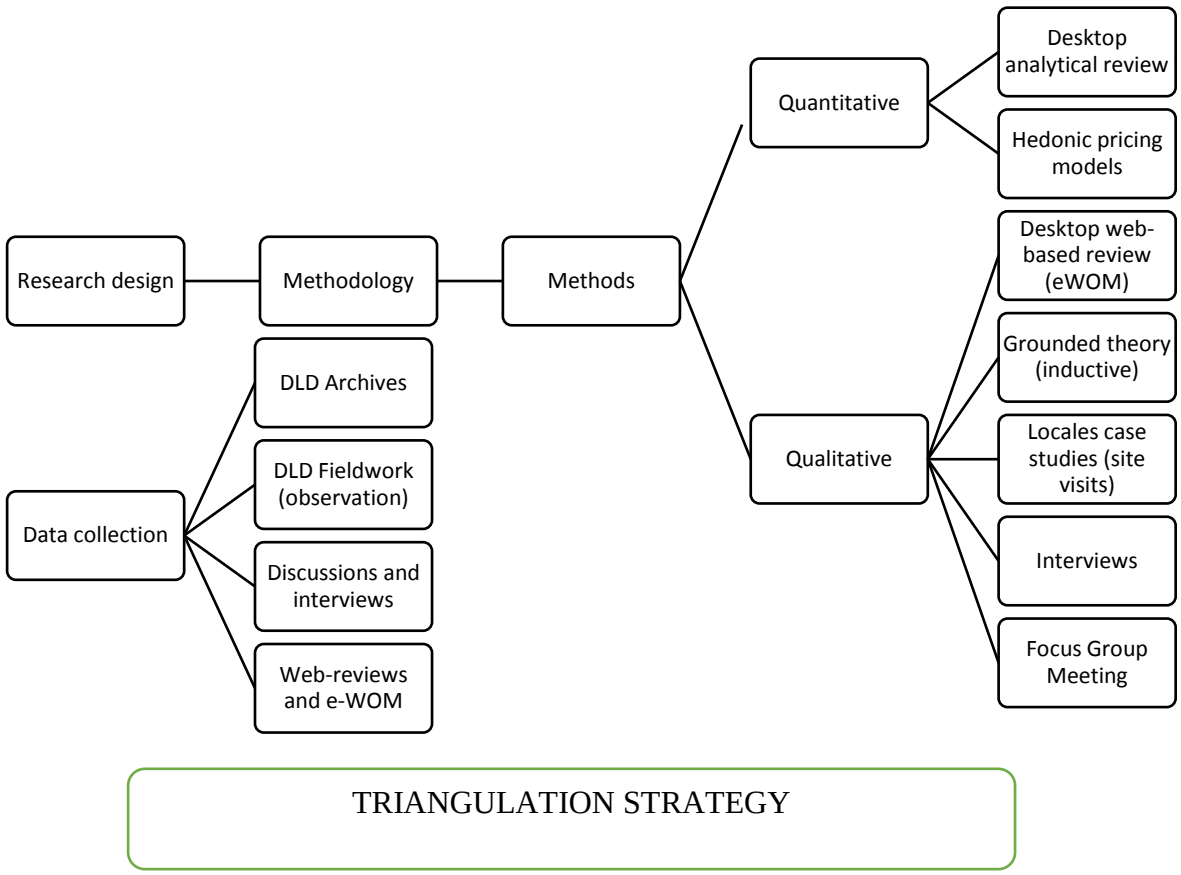


FIGURE 4.4: SCHEMATIC REPRESENTATION OF RESEARCH METHODOLOGY, METHODS, DATA COLLECTION AND ANALYSIS.

Source: Author, adapted from Creswell 2013

4.5 RVS scenarios

All the mixed evidence gathered by the quantitative and qualitative methods generate data that can assess the five scenarios which help determine whether the RVS is adequate or not. The scenarios were generated by the three introductory chapters using the e-WOM, academic and industry literature as well as the grounded theory (embedded in DLD and other RVS institutions).

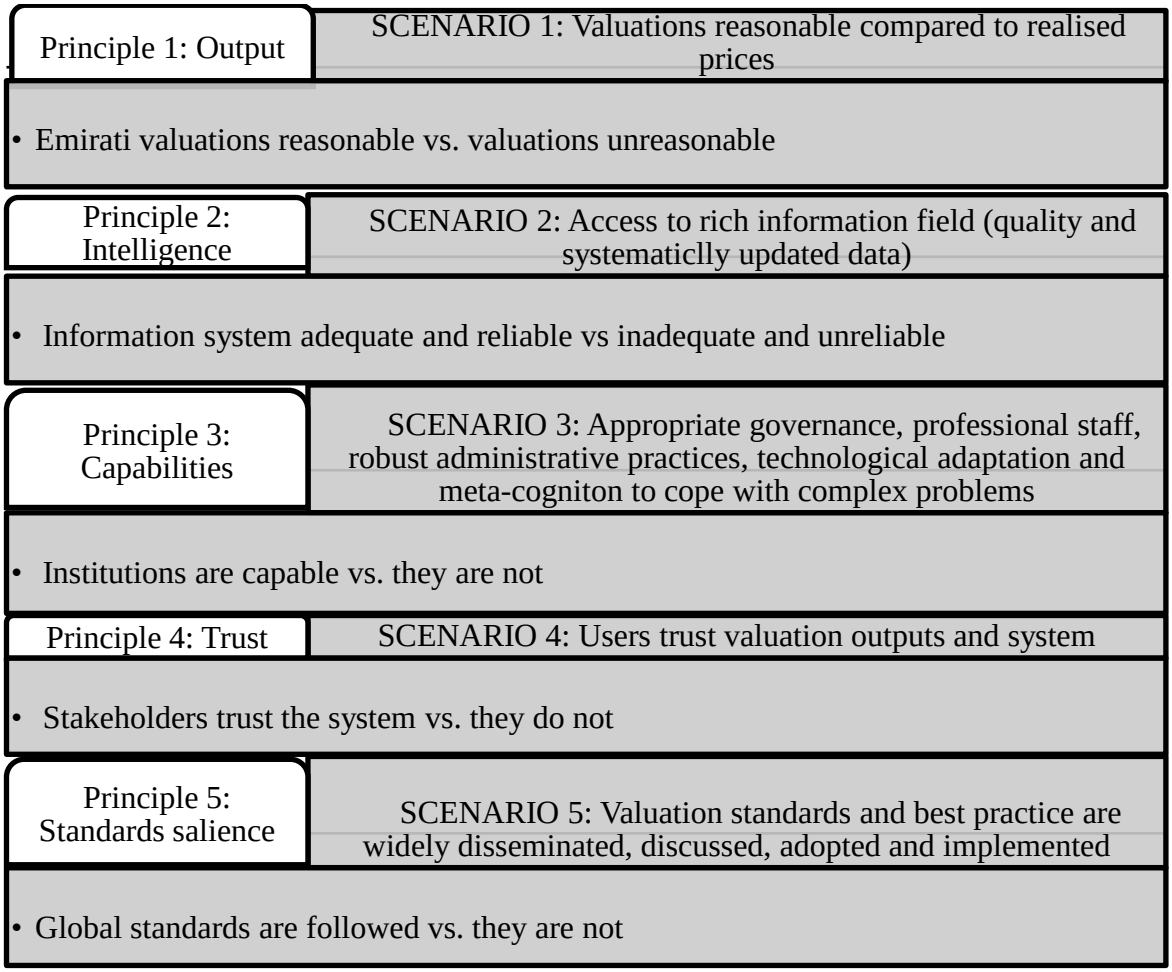


FIGURE 4.5: RVS SCENARIOS GENERATE ALTERNATE SCENARIOS FROM FIVE RVS PRINCIPLES, AND SUPPORTS THE RVS EXPLANATORY FRAMEWORK

The RVS mixed inductive and explanatory research methodology adopted by the thesis collected enough evidence from various sources to make a convincing determination about which of the five alternate scenarios characterizes the current

Dubai valuation situation. Subsequent Focus Group Meetings sought further nuances and considered the specific institutional context for a complete answer to the main research question (Ch1).

As the research method involves different methods of data collection, analysis, and interpretation (Creswell, 2009), the next task for the methodology chapter is to identify relevant sources of information relevant to each of these five RVS fields, namely locales, transactions samples, target institutions and respondents for interview. The thesis identified a pragmatic sampling strategy for the interviews and FGM and appropriate analytical methods for its different stages such as weighted scoring to determine the extent to which different valuation principles in the draft explanatory framework actually reflected working practices in the Dubai valuation community. The mixed method approach with its inductive and deductive elements provides balanced evidence on valuation context, accuracy, trust, standards and institutional capabilities. It examines evidence for the five scenarios and makes a determination on the maturity of the RVS (the complete answer to the valuation system problem).

4.6 RVS Draft Explanatory Framework

Using its five principles and scenarios, the thesis generated its explanatory framework (Fig 4.6 below) for a comprehensive evaluation of the UAE valuation system. Just as with the assessment of a football league, a multi-criteria judgement to assess system robustness involves not only consideration of historical performance or outcomes (goals, valuations and property title deeds, etc.) but also supporting infrastructure (intelligence) and the capabilities of system components (institutions). For the RVS, the salience of valuation standards and trust in system are also important considerations for a balanced assessment of sustainable and balanced performance.

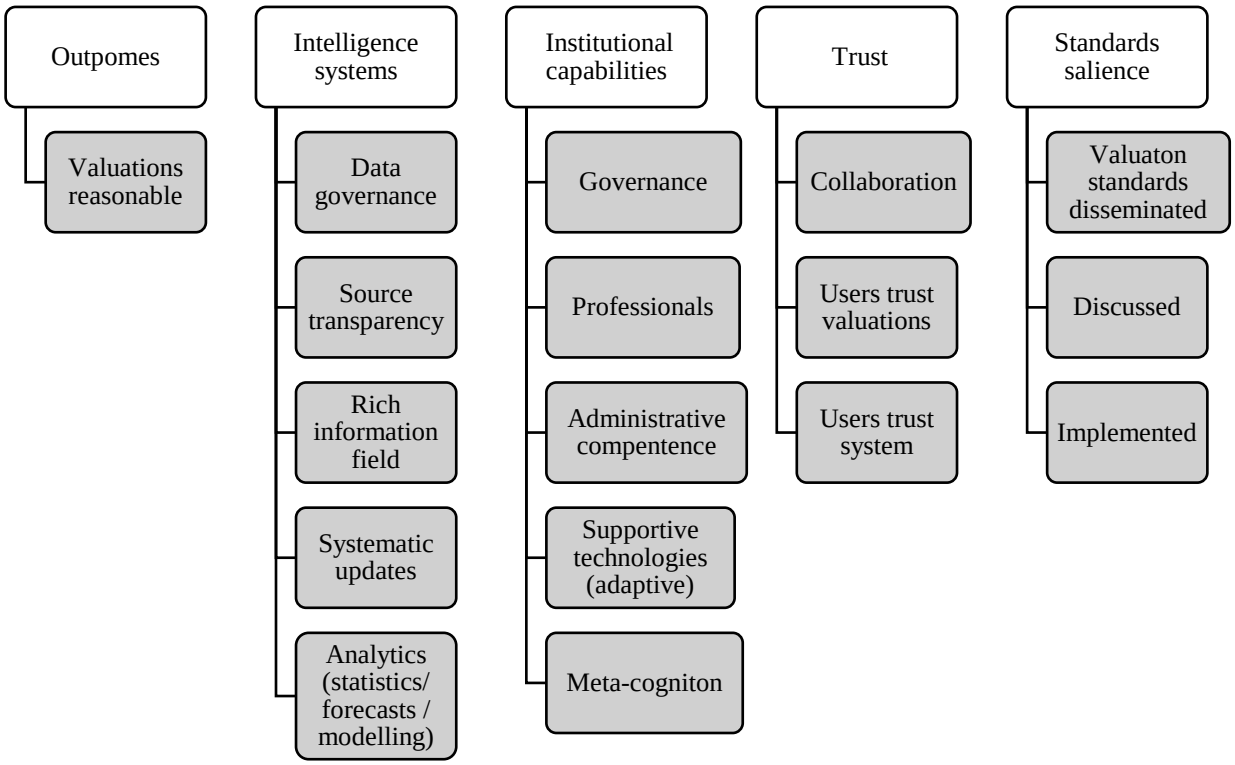


FIG. 4.6 RVS EXPLANATORY FRAMEWORK [SOURCE: AUTHORS (2015), DEVELOPED FROM FIVE RVS PRINCIPLES (CH3), ADAPTED FROM STREINER (2006). CLEAR RECTANGLES =RVS PRINCIPLES/CONCEPTS/NOTIONS OR, IN STRUCTURAL EQUATION MODELLING, 'LATENT VARIABLES'. THE SHADED RECTANGLES REPRESENT MEASUREABLE INDICATORS (VARIABLES OR KPIS)]

To summarize, the research identified the main UAE valuation problems and contextualised the institutional and valuation factors (economy, geography, house price trends, valuation backdrop, stakeholders and UAE valuation practices). It reviewed the real estate literature on markets, systems and global valuation standards to generate a RVS explanatory framework and outline a pathway for a complete answer in four phases: Conceptual, Exploratory, Operational and Reflexive Phases. With the RVS methodology clear and the Explanatory Framework in place with its alternative scenarios, the Conceptual Phase of the thesis is almost complete. It is now necessary to detail tasks for the other

subsequent phases of the research on the way for a complete answer. Important tasks involved analysing transactions and other data to determine the level of valuation accuracy and to investigate specific issues (information systems, institutional capability, trust, standards) or possible reasons for malfunction in order to make informed recommendations for concrete improvements.

4.7 Research steps

The research was conducted in four phases (see Table 4.1 for details). The first phase was a conceptual one and included a systematic review of relevant academic and professional literature concerning real estate and its valuation. The literature review in Chapters 1 and 2 found that real estate values are influenced by a complex mix of factors, particularly the property regime, shifts in government planning policy and the fluctuation of credit-fuelled global financial markets (Wolf 2014). The Conceptual Phase concluded with the RVS framework and a detailed research methodology.

The Exploratory Phase involved, first, documenting the current institutions, standards and valuation practices in the Emirates via desktop and embedded research. The embedded research helped to establish the level of market maturity and the key market players. Once the market landscape was clearer, the research sought to estimate the extent of any valuation inaccuracy through statistical analysis, embedded discussion and interviews. In practice, hedonic modelling to estimate the divergence of list prices from estimated prices (MV) was complicated by the availability of reliable and consistent data. The first step for institutional analysis involved Grounded Theory or embedded research at the DLD to document the entities involved in the registration and valuation process (market players) in Dubai. GT then collected evidence on valuation standards and valuation protocols in use. Practice observation and player discussions should establish whether the Dubai-RVS collects useful structure and dynamic intelligence. The research looked for indicators of good practices such as environmental scanning (ES). Later operational research investigated links

between degree of inaccuracy and system characteristics (institutional capacity). RVS ES intelligence capability should include access to GIS (maps) to understand place complexity as well as databases of transaction details and access to research on property market dynamics. ES involves collecting, registering, categorizing and summarizing evidence from diverse intelligence sources. The research also identified relevant operational indicators of good practice such as the application of spatial decision technologies, use of property registers or databases which provide access to details about utilities or boundaries in case of disputes. A modern RVS should make use of remote technologies to conduct desktop research for registration, due diligence, mass appraisals or locale quality criteria for planning. Remote information sources need the support of systematic site visits by qualified professionals (surveyors) to measure subject properties (RICS measurement standards 2017), determine condition and record key features or encumbrances (RICS Red Book 2017). For MV determination, grounded evidence supports the selection of appropriate comparable properties (similar recently sold or leased premises) (JPIF 2017). Academic indicators of RVS intelligence capabilities could include the use of advanced modelling techniques to inform cyclical determination such as statistical modelling (Heps and Vatansever, 2011). Practical indicators of RVS institutional capacity could involve documenting the technologies utilized, recording surveyor qualifications and observing or questioning practice.

4.8 Exploratory Phase

The Exploratory Phase of the thesis initially involved desk-top research (web-based research and e-WOM) to identify the main valuation players, policies, projects and research). To enrich the initial desktop research, the research undertook an initial visit to DLD to understand the context and general market conditions and issues (field work). The visit observed valuation procedures and discussed key issues, including the selection of Dubai locations for subsequent site visits and statistical housing transactions investigation. It also helped to identify key system agents or residential property stakeholders. As the GFC underlined important interactions between house prices and the rest of the economy, the research reviewed the UAE macro context.. At the micro-spatial scale, the exploratory research undertook locales case study site visits to gather primary qualitative data on a sample of Emirati sub-markets (field work). The final stage in the Exploratory Phase involved quantitative analysis of transaction prices and market values, with a view initially to understanding market structure and dynamics and then to establish the reliability of DLD data, data governance and valuations. Data limitations undermined attempts to generate a 'fitted price' by regressions to compare with DLD market valuations. Nevertheless, the Exploratory Phase helped to understand the RVS backdrop, market structure and dynamics but also identified some valuation issues.

4.9 Operational Phase

To fully investigate the valuation system in the light of global international standards and best practices, the operational research scrutinised actual current valuation practices in Dubai using embedded discussion, observation and expert interviews. The Operational Phase structured its investigations around the draft explanatory framework (RVS Explanatory Framework) looking for system weakness. In practice, qualitative operational evidence was gathered from, first, ongoing DLD embedded fieldwork in 2014-17 and, second, from stakeholder

interviews conducted in 2016. Stakeholders were selected based on power to influence practice and pragmatic considerations (Mitchell et al. 1997). The grounded fieldwork at DLD assessed different institutional environments, policies, projects, procedures, stakeholders (system components). The embedded stage involved detailed examination of archival material (paperwork), attendance at valuation meetings, observation of administrative practices and discussions with Emirati and international practitioners and academic experts.

The expert interviews, conducted in 2016, sought the views of a range of public and private stakeholders (DLD and DM officials, planners, real estate agents, financiers and developers). The interviews were designed to capture qualitative evidence to check aspects of the two RVS scenarios, relating to information systems, institutional capability, trust and compliance with international valuation standards. The second principle required that agents should be able to access a robust intelligence system, characterized by data governance, source transparency, rich information field, up to date software but could also use analytical approaches such as statistics, price indices, forecasts, hedonic or other mass appraisal models. The third principle about institutional capabilities was investigated using a range of indicators such as governance (leadership, strategy and management), resilience (adaptation), collaboration, technologies, professional staff, sound administrative practices and meta-cognition. The fourth aspect of valuation systems the research investigated in its operations phase focused on whether used trust valuation outputs and system itself. The final requirement for a mature valuation system is that valuation standards and best practice are widely disseminated, discussed and implemented. Pragmatic indicators of salient standards were staff-stated awareness (embedded discussions and interviews), online use of latest RICS (2017) guidance and valuation report in Dubai Land Department, Emirates Bank, Nakheel, Emaar etc. about valuation base (‘market’, ‘investment’, ‘fair’, ‘mortgage’ or rateable value), valuation date and use of appropriate valuation technique.

In short, the Operational Phase assessed the key factors which drive the maturity of the valuation system towards international best practice.

4.10 Reflexive Phase

Once data have been analysed, the final reflexive phase of the thesis organised a stakeholder focus group (Focus Group Meeting) to validate and enrich the evidence gathered during previous research (literature reviews, desktop reviews, grounded discussions/observation, site visits and interviews). FGM valuation experts were asked to validate key policy recommendations and to reflect on institutional issues relevant to the UAE valuation system . The research analysed the FGM discussion transcript using an iterative coding approach (Ward 2011) and the Framework Method. FGM analysis challenged some preliminary findings (for example that the valuation output was reasonable) but broadly validated much of the previous research evidence (that there were information and professional weaknesses in the Dubai system) and also identified new issues such as independence, the valuation of complex projects and the need for valuers with meta-cognition who can judge all the complex factors and dynamic forces influencing property markets. The triangulation of the results from the different research phases in Chapter 8 strengthened the conclusions and recommendations of the thesis.

4.11 Data sources and triangulation

The research involved a pragmatic mix of methods to collect diverse sources of evidence following the recommendations of Tellis (1997: 7-9) and Yin (1994: 80) for a comprehensive account of a phenomenon. Multiple sources of evidence enable reliable triangulation to improve the reliability and validity of the research. Yin (1994: 80) suggests six sources to achieve this, including websites, documentation, archival records, maps, photos, plans which were all accessed in the embedded research (Grounded Theory). Direct observations at site visits provided qualitative locales (sub-market information). Stakeholders' interviews and FGM provide additional information about valuation backdrop and market price. One of the main advantages of the mixed methods approach is that it, first, allows alternative perspectives to emerge. Factors not considered in the draft

explanatory framework are thus not overlooked. Second, the mixed approach enables the triangulation of evidence to increase confidence in the results of the research (Currie 2005; Tellis, 1997: 2). Figure 4.7, below, illustrates the principles of triangulation.

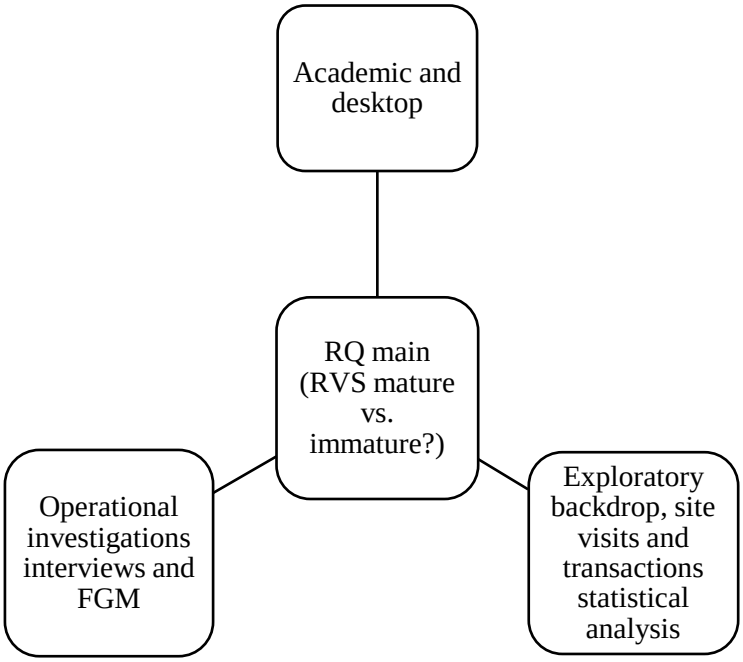


FIGURE 4.7: PRINCIPLES OF TRIANGULATION

[Source Author, adapted from Currie D (2005).]

Fielding and Gilbert (2006) provide a useful guide to conducting credible triangulated research. The notion of a reliable residential valuation system involves several dimensions which are measured by a relationship among quantitative indicators but also by more nuanced interpretations of practitioners and experts. Efforts were made to ensure that the data collected was relevant, reliable and timely. Reliability concerns the consistency of the measurement; hence the research assessed indicators of project quality using multiple sources such as discussions with officials, site visits and agent views and reputation among investors. Validity concerns the extent to which an indicator accurately measures the main concept; hence, the research compared DLD records with market prices and the views of commercial players. Also, as Fielding and Gilbert

(2006) advise, the embedded research focused on particularly interesting valuation cases such as appeals (see Appendix 4.1).

To provide convincing evidence, data from various secondary or primary sources were triangulated. Secondary web-based research (media searches, websites, blogs and social media) was supported by primary analysis of property sales transactions. Primary data also came from DLD archives, observation of administrative procedures or from expert interviews, sampled on a pragmatic basis from the population of legitimate RVS stakeholders who had the power to make valuation decisions.

TABLE 4.1: DATA SOURCES AND DATA ANALYSIS (SOURCE: AUTHOR 2015)

PRINCIPLES	RQ & SCENARIO	DATA AND INDICATORS	ANALYSIS
Principle1: Valuation and other system outputs	RQIII: Is there a valuation problem? Scenario 1 : UAE-RVS is accurate vs. it is not	• Dubai Land Department transaction price records	• Case study of the five Dubai locales • Embedded observations and discussions • Exploratory statistical analysis (hedonic regressions of prices vs. valuations)
Principle 2: Intelligence	RQIV: What are the main issues with the current UAE-RVS practice? Scenario 2: Information system adequate and reliable vs. inadequate and unreliable	• Intelligence systems • Data governance • Source transparency • Rich information field • Systematic updates • Analytics (statistics, forecasts, modelling)	• Archival material • Observation • Interview transcriptions and analysis
Principle 3: Capabilities	RQIV: What are the main issues with the current UAE-RVS practice? Scenario3: Institutions are capable vs. they are not	• Governance • Resilience (adaptation) • Professionals • Administrative competence • Meta-cognition • Collaboration • Supportive technologies	• Archival material • Observation • Interview transcriptions and analysis

Principle 4: Trust	RQIV: What are the main issues with the current UAE-RVS practice? Scenario4: Stakeholders trust the system vs. they do not	• Users trust valuation outputs • Users trust valuation system	• Interviews transcriptions and analysis
Principle 5: Standards salience	RQIV: What are the main issues with the current UAE-RVS practice? Scenario5: Global standards are followed vs. they are not	• Valuation standards disseminated • Best practice is widely discussed • Standards implemented	• Archival material • Observation • Interview transcriptions and analysis
Ch.5: Dubai context and residential market analysis	RQII: How does the UAE housing markets context (institutions, key stakeholders, market structure and dynamics) influence values?	• Secondary web-based sources (maps, internet, departmental web sites and blogs) • Archival material from different Emirati institutions • Site visits, interviews and observation	• Analytical review • Descriptive statistics of key UAE economic data • Qualitative summaries
Ch.6: Dubai Valuation practice: observation and interviews	RQIV: What are the main issues with the current UAE-RVS practice?	• Embedded research (discussions, observations, document checks) • RVS key stakeholder interviews	• Grounded Theory memos and supporting documents • Analysis and weighted scoring of stakeholder interviews
Ch.7: Focus Group Meeting		• FGM discussion about the Principles, preliminary findings, institutional issues and issues which moderate UAE valuation systems	• FGM transcriptions discussion on findings and Principles
Ch.8: Integrated analysis		• FGM discussion about the Principles, preliminary findings, institutional concerns and issues which moderate UAE valuation systems	• Focus group meeting analysis • Framework analysis • NVivo word cloud
Ch.9: Conclusion	RQV: What are the key UAE-RVS policy recommendations?	• Summarize policy • Recommendations	• Triangulation of all research (whole thesis)

4.12 Limitations

There are several limitations to the research which are discussed here in sequential order. First, the desktop review provided only limited access to Dubai real estate market. For the embedded research, it was difficult to talk openly with people who were worried whether the data would be kept confidential. To obtain approval from top management to access archival transaction data proved difficult. The use of the DLD systems was restricted so that the researcher was unable to conduct independent checks. DLD could not be matched, so that it was impossible to be 100% sure that a valuation was aligned with a market appraisal (MV). Also, the data included limited quality attributes so that it proved impossible to run a robust hedonic regression. For the interviews, a significant limitation was that most of the respondents were DLD officials, who do not represent the whole community of system valuers. However, this does reflect current Dubai legislation which limits the work to officials. The research did consider weighting responses to increase the salience of opinions of international firms but decided that the focus was to gain insights or find gaps regarding the current system, not to focus on international best practice despite the fact that these respondents were not impartial. Finally, there were some concerns that the location of the FGM should have an independent chairman and be in an independent location. However, for pragmatic reasons of being able to bring together influential participants the meeting was held at the Dubai Real Estate Institute (DREI). One weakness of the research is that it did not include rental agencies like Better Homes or construction firms like Bechtel, Taylor Wimpey, Lang O'Rourke and Multiplex.

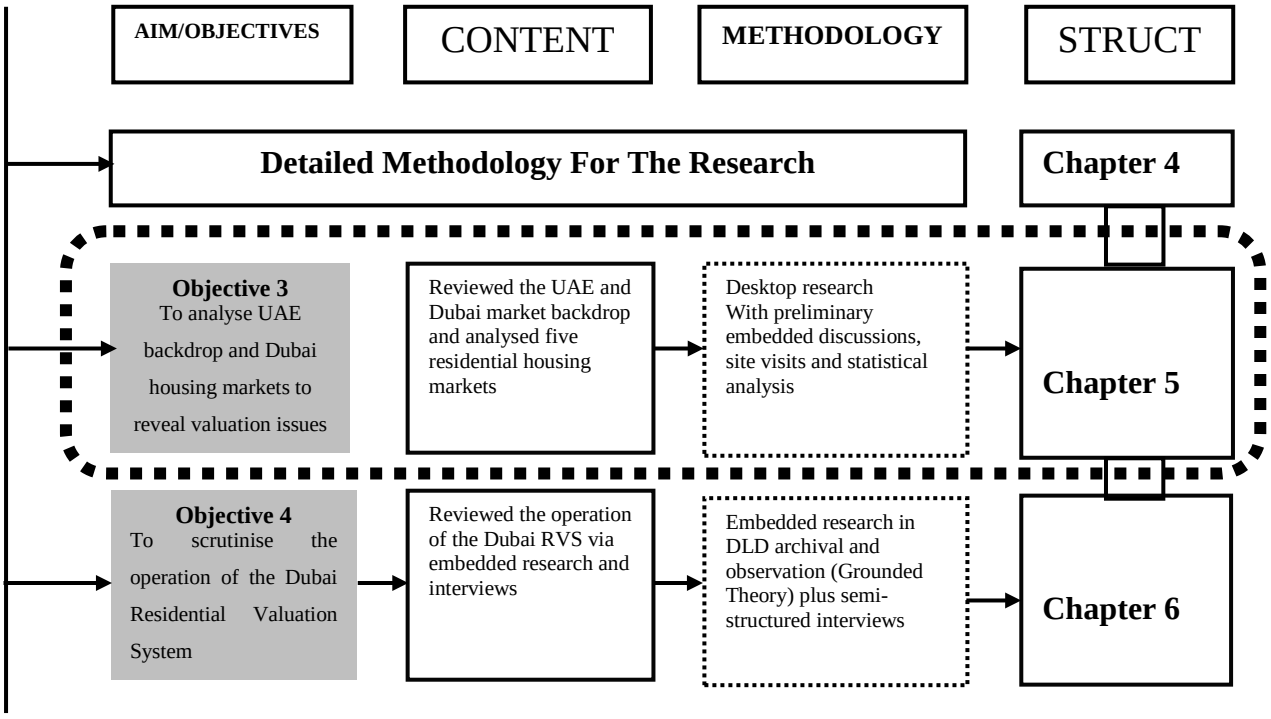
4.13 Conclusion

The fourth chapter of the thesis into Emirati RVS reviewed alternate research approaches and methodologies which could provide answers to the research question of *What constitutes an appropriate residential valuation system for the United Arab Emirates?* The chapter discussed the nature of research design, the merits of different deductive or inductive approaches, using either quantitative or qualitative data. It proposed an explanatory sequential mixed methodology to achieve the thesis milestones for a complete answer (Ch1). Table 4.1 illustrated the data analysis and data sources for each of the thesis chapters. The research was sequentially phased. Initially, web-based desktop research was enriched by embedded research over an extended period (2015-2017) at Dubai Land Department and among other key stakeholders (discussions, observations and archival research). In 2016, five Dubai case studies locales were visited and photographed for qualitative descriptive analysis. Quantitative statistical analysis was conducted, using DLD transaction records. In 2016, the research interviewed system stakeholders, using a semi-structured questionnaire with open and closed sections. Finally, a focus group added further insights. All of these sources of evidence helped evaluate the extent to which current valuation practices in Dubai complied with a draft multi-criteria framework (toolkit) involving results, intelligence systems, institutional capabilities, trust and standards salience. However, the pragmatic paradigm also means that the research allowed for new thoughts to emerge during embedded, open-ended interview questions or during the Focus Group Meeting.

The exploratory examination in the following chapter begins with a desktop analytical review of the UAE economic backdrop and then examines five residential housing markets within Dubai to enrich the valuation context. It then compares MV and realised prices to determine if the level of valuations are reasonably accurate (RVS Principle 1 [Output]). Later, price modelling was cross-checked against the views of experts, expressed during discussions and interviews at the Dubai Land Department or with other stakeholders. The

combination of data analysis and interviews established the extent of the Emirate valuation inaccuracy (i.e. is there, in fact, a valuation inaccuracy problem?).

Chapter 5: UAE and Dubai Market analysis



5.1 Introduction

In the search for an appropriate Dubai residential valuation system, the previous chapter outlined the explanatory sequential mixed method selected to answer the main research question of *whether or not the current Dubai residential valuation system is appropriate?* The task for this fifth chapter is to explore different aspects of the UAE conditions to determine what economic and market factors could impact on valuation and to investigate whether there is a valuation issue. The chapter uses secondary and primary qualitative and quantitative data. Exploratory examinations of the UAE housing market focused on the emirate of Dubai for both theoretical and practical reasons. Theoretically, Dubai is the most active market in the United Arab Emirates but it remains volatile because of its exposure to fluctuations in foreign investor sentiment and capital inflows/outflows. The explorations were conducted in five stages: preliminary discussions with international and local experts, housing market analysis using secondary data, embedded research in the Dubai Land Department, site visits to key locales. Finally, statistical analysis of residential property transactions was conducted. A wide range of primary and secondary sources underpin the overall assessment of the RVS.

Preliminary discussions about the market were held with knowledgeable people in Dubai or academics with some experience of Dubai. The discussions provided useful information about local markets and helped to identify the five locales for site investigations. Secondary data analysis involved the use of macroeconomic studies and several housing market reports for a better understanding of the past situation. Current institutions were involved in valuation, market structure, segmentation and evolution. Site visits were conducted to development projects helping to develop an understanding of how the urban form, amenities, facilities, infrastructure and planning issues influence valuation. In 2016, five locations were visited, including Dubai Marina and Burj Khalifa. Observations were made, photographs taken and formal and informal discussions were held with site engineers, agents, valuers, developers, site owners, project managers and end

users. The locales site visits enriched qualitative submarket analysis and provided useful practical details for subsequent research stages. Embedded research involved repeated visits to DLD over several years from 2014. Transactions were traced, observations were made regarding registration and administrative procedures, archives were verified to obtain greater clarity about local markets, rules and regulations. Finally, Chapter Five ends with some quantitative analysis of transaction prices and market values, looking to understand market structure and dynamics and establish the reliability of Dubai Land Department ('DLD') valuations. Transactions were analysed and summarised using descriptive statistics. After cleaning the data and eliminating outliers, some analysis was conducted to establish whether valuations correlated with market prices. Hedonic regressions helped to understand market drivers in five Dubai locales. The hedonic regressions strengthened initial qualitative submarket segmentation analysis and provided more guidance on market structure and dynamics. The statistical analysis of market values looked for significant discrepancy between valuations and realized prices to establish the extent of the Emirati valuation problem in line with the first RVS Principle. All these exploratory investigations provided evidence to support either scenario one (RVS reasonable) or its alternative (RVS unreasonable).

5.2 Discussions about Emirates backdrop

During the research period, discussions were held with a wide range of academic and other experts about the factors influencing the Dubai real estate market and the residential valuation process. To understand the valuation system situation, the historical and institutional setting, duties and responsibilities of various stakeholders need to be understood. The discussions made it clear that valuation in Dubai has evolved from a traditional market to an international emerging one. The discussions confirmed Conceptual Phase findings that major influences on housing markets and real estate valuation are, first, capital inflows and, second, general macroeconomic conditions and market sentiment. A robust valuation

system should capture relevant data on internal or external factors which influence capital markets or the national economy and so alter valuations.

5.2.1 Evolution of the market from traditional to emerging

The map in Chapter 1 illustrates the location of the UAE and provides some background information. For thousands of years, ports along the Trucial Coast were notable for enabling regional and international trade between Europe and Asia. Slaving, gunrunning and piracy supplemented trade in silk, spices, frankincense, ivory, gold and pearls (Davidson 2012). Ottomans, Portuguese, Dutch and English colonialists all tried to dominate the Gulf, maintaining naval bases to secure trade routes (Frankopan 2015; Lewis 1995). In 1971, the UAE formally gained its independence from the UK. In the past fifty years Dubai has transformed itself from a lightly populated settlement of 50,000 in 1961 to a major urban centre of 1.48 million in 2007. Throughout its history, trade has been central to the Emirates economy but the strategic importance of the Gulf to regional and global powers remains (ibid. 2015; Davidson 2016). Around 80% of the world's crude oil reserves are located in OPEC Member Countries, with the bulk of its oil reserves in region. (OPEC 2017).

According to Davidson (2012), the UAE economy has several pillars: Abu Dhabi's hydrocarbon output (oil and gas), trade, re-export and logistics related activities (aviation and shipping), Dubai's service, tourism and hospitality sectors as well as its construction (real estate, infrastructure, public works and megaprojects). In a volatile region, investors perceive the UAE as a safe-haven and it benefits enormously from regional growth, especially for overseas investors (*ibid*. 2012).

TABLE 5.1: SELECTED UNITED ARAB EMIRATES MACROECONOMIC INDICATORS (SOURCE: WORLD BANK 2015)

	2010	2011	2012	2013	2014	2015
Output and prices	(Annual % change, unless otherwise indicated)					
Nominal GDP (billions of U.S. dollars)	286	347	372	402	422	442
Real GDP (at factor cost)	1.6	4.9	4.7	5.2	4.7	4.5
Real hydrocarbon GDP	3.8	6.6	7.6	4.8	3	2.3
Real non-hydrocarbon GDP	0.7	4.1	3.3	5.4	5.5	5.5
Public finances	(% of GDP, unless otherwise indicated)					
Revenue	29.9	34.6	36.2	34.6	33.9	32.6
Hydrocarbon	22.3	28.4	28.9	27.2	25.8	24
Non-hydrocarbon	7.6	6.2	7.3	7.4	8.1	8.6
Expenditure and net lending	31.7	30.4	27.3	28.1	26.7	26.3
Budget balance	-1.9	4.2	8.9	6.5	7.2	6.3
Monetary sector	(Annual % change)					
Credit to private sector	1.2	2.3	2.3	10.3	15.3	15.3
Broad money	6.2	5	4.4	22.5	23.4	17.1
External sector	(Billions of U.S.$, unless otherwise indicated)					
Exports of goods	214	302	349	379	402	433
Oil and gas	75	112	120	123	123	120
Imports of goods	165	195	217	242	274	301
Current account balance	7.2	50.9	69	64.7	51.3	52
Current account balance (percent of GDP)	2.5	14.7	18.5	16.1	12.1	11.8
Gross official reserves	32.8	37.2	47.1	68.1	79.8	94.5

Table 5.1 suggests that in recent times (up to 2015), the UAE experienced steadily rising macroeconomic growth of between 4% and 5%. The budget balance seems to have improved, although more recently pressure on public finances has increased. Table 5.1 also illustrates some fluctuations in economic growth with real GDP growth of 5.2 % in 2013 slowing to 4.7% in 2014 and about 4.5 % in 2015. Overall, the figures suggest reasonably sound economic conditions but with growth stimulated imports.

5.2.2 Oil and the economy

Future growth is dependent on economic diversification as the hydrocarbon (oil and gas) sector is being carefully managed to save resources for coming generations. Oil and gas still accounts for about one third of the Emirates exports but 74% of government revenue (Table 5.1). Since the collapse of oil prices after the 2008 global economic crisis, the Emirates dependence on hydrocarbons has somewhat moderated (Table 5.1). However, the situation remains unsustainable as Fig. 5.1 indicates. Prudent financial policy requires further spending cuts and higher saving via its sovereign wealth fund or productive infrastructure so that future generations share the Emirates hydrocarbon wealth. Despite Dubai's diversification, oil still affects Dubai's real estate investors.

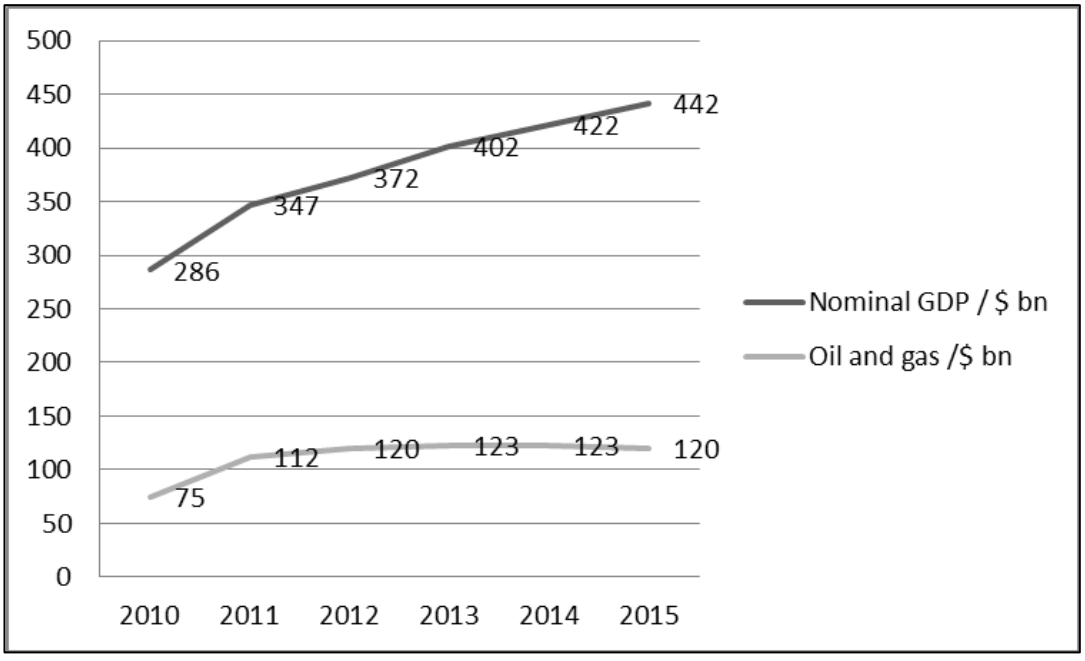


FIGURE 5.1: UAE HYDROCARBON (OIL AND GAS) EXPORTS COMPARED TO NOMINAL GDP (SOURCE: WORLD BANK 2016)

Figure 5.1 above suggests that the government diversification strategy has succeeded in encouraging growth which is independent of oil and gas as nominal GDP grew to $442 bn by 2015 while hydrocarbon output stabilized. One of the factors replacing oil and gas is the growth of the real estate and construction sectors.

5.2.3 Risk and restructuring

Despite solid economic growth and reasonable outlook, potential risks for the UAE include regional instability and insecurity, banking system issues, unsustainable residential real estate markets, oil markets volatility and financial short-termism. Regional insecurity remains the biggest risk to UAE economic growth and property values. The 2008 Global Financial Crisis, showed how vulnerable the Emirates are to global sentiment, credit conditions and oil price fluctuations. After the 2008/9 crisis, Abu Dhabi provided US$20 billion funding to help restructure Dubai's debt and many of its government-related entities (GREs) have restructured (IMF 2014). A recovery in the market and sales to these GREs has enabled some defaulting of real estate entities as in the cases of *Nakheel* and *Dubai World* to resume debt repayments (*Ibid*. 2014). In recent times, bank deposits have grown enough and private sector lending has resumed. According to WHOM???? (*Ibid*. 2014), increase in liquidity, higher capital buffers drop in nonperforming loans since their post-crisis peak suggests the Emirati banking system has adequate capital. A stricter monetary regime and better policy coordination between the federal and emirate governments would improve confidence in more cautious global financial community.

The results of discussions about the UAE economy and markets found that diversification is an important factor underpinning sustainable economic growth. Discussions revealed that over the past thirty years, the Emirates has developed very rapidly as a progressive trading, and business hub, supported by regional and global growth and migrant labour. Prosperity for the beneficiaries of this activity are linked to global growth rates but vulnerable to exogenous shocks (regional tensions or oil price fluctuations). Consequently, the RVS needs to monitor regional instability, global sentiment and oil prices.

5.3 Dubai housing market analysis

The second task for the fifth chapter is to examine the Emirati residential housing markets, 'looking for segmentation' using qualitative data. Both the academic and valuation literature highlighted the major influences on valuation, including historical setting, institutional factors, demographic pressures, economic and markets conditions. Population pressure, economic growth, interest rates feed into housing market indicators like vacancy levels, yields, affordability and price growth or decline. The economic overview and analysis using secondary data (reports) provides a deeper understanding of local market structure and dynamics which has been strengthened by subsequent site visits, embedded research and statistical analysis.

5.3.1 General housing backdrop

Dubai has evolved from a traditional market to become an emerging international real estate market. From 1860-1995 the market was basically traditional. In this traditional market, the Sheikh allocated the land among Emiratis in order for them to build their own dwellings. The process was conducted within the community. In 1959, Ahmed Adam, a Sudanese, started the Dubai Land Department, *Taboo Department*. Sheikh Rashid, the ruler at the time, requested the British administrator to approve this action. *Taboo* is a Turkish terminology, introduced into the Arabic. *Taboo* was part of the Dubai Court within Naif Fort (DLD 2015) but later separated. The discovery of oil in the 1960s stimulated the local economy and the demand for housing. As the population rose, due to the influx of foreign firms, accommodation was required, which started a construction boom. Local partners of domestic or foreign groups built condominiums which were leased to locals or expatriates. Due to the high demand and housing shortage, locals were protected by three schemes. Within these three programmes, land was gifted freehold under restricted conditional title: Sheikh Maktoom Housing Programme, Sheikh Zayed or normal guarantee for individuals, capable of managing their own construction. Normally, provided conditions were met under

the first two programmes, title was granted. However, for the third the ruler granted unrestricted title to owners if a formal request was made. In the early days, locals restricted their demands to their basic needs. However, over time, the investment potential of real estate became more and more obvious and important to locals. Land title registration procedures were basic – simply recording details in a book. Disputes were resolved personally by the Sheikh or by a panel identified by the ruler. Before the 1990s, infrastructure was quite basic, except for a few iconic projects like Dubai Port or Dubai Airport. The market continued to evolve and in 2002, the Dubai market was opened up to foreign buyers and became an international emerging market. However, there were many obstacles on the journey including urban planning, rules and regulations to protect locals and investor rights (Al Dah 2015). Like all real estate markets, over past decades, Emirati property prices fluctuated with booms and busts or cycles (Hepşen and Vatansever 2012; Redin 2016). Fig 5.2 illustrates actual and projected variation of median prices 2003-219.

FIGURE 5.2 DUBAI MEDIAN RESIDENTIAL REAL ESTATE PRICES (SOURCE: REDIN 2016)

The figure illustrates Emirati real estate is cyclical with two peaks in 2008 and 2014. In June 2008, the GFC hit over-priced markets badly. One result was

Dubai's ntity GRE housing companies like Nakheel, Emaar and Dubai Properties struggled to pay accumulated debts. For its Palm Jumairah project, *Nakheel* had accumulated AED 26bn in infrastructure costs but projected sales were not achieved. In 2009, Abu Dhabi offered soft loans and bailouts of AED 10bn to help restructure its debt (*Appendix 5: Interview Responses* 2016, Q2, p5, [R1]). Markets eventually rebounded and by 2016 renovation work on Palm Jebel Ali were 96% complete but the interviews suggest that only 4% of its infrastructure is finished so Nakheel still has significant future expenses (and liabilities). Ambitious transformation projects, like the Palm Jebel Ali, need significant initial investment before income from home sales and retail leases pays off expenses. The Palm is one significant and iconic project among many large and complex on-going projects in Dubai (and the UAE) which demonstrate the need for competent and experienced valuers in the RVS who have access to sufficient quality information to make informed judgements about planning issues, project technical and financial risks and the reliability of revenue. Part of this information field could include charts like Figure 5.3 which give valuers a good idea about market conditions.

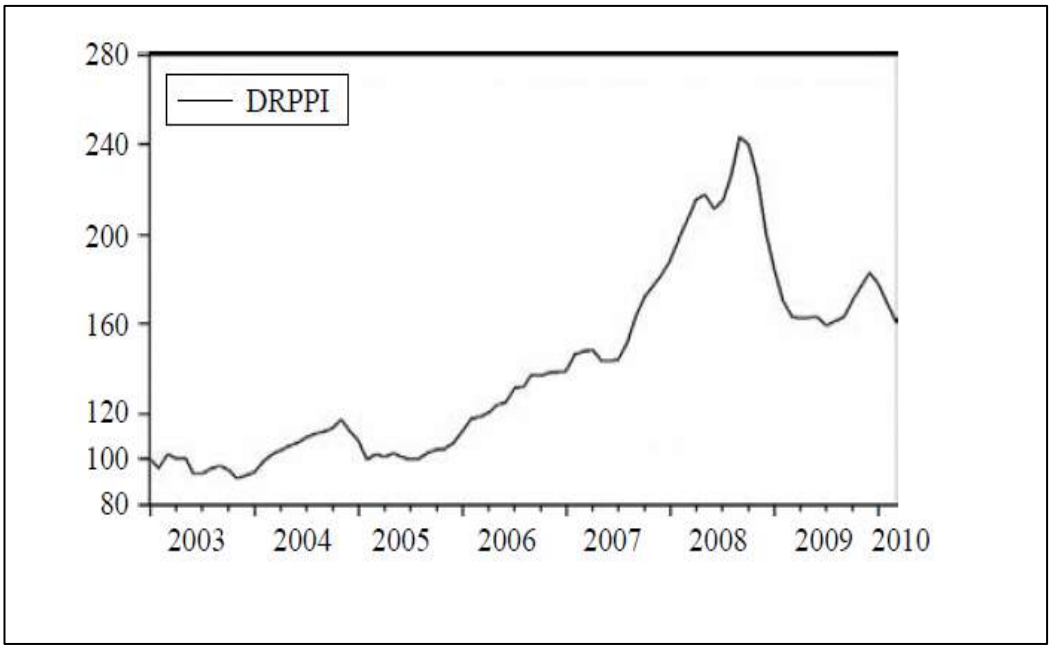


FIGURE 5.3: DUBAI MEDIAN HOME PRICES 2003-2010 JANUARY 2003 = 100 (SOURCE: REIDIN.COM (2010) DUBAI RESIDENTIAL PROPERTY PRICE INDEX, HEPSEN, A. AND M. VATANSEVER 2011: 215)

5.3.2 Real estate institutions and administration

Real estate institutions and administration are an important mechanism to help achieve market understanding and wisdom. As the market has evolved, real estate institutions in Dubai and the wider Emirates have adapted and improved. For example, in 1954 Dubai Municipality (DM) began with just seven employees whose main task was to clean the city. In the early days, land administration, planning and surveying were relatively basic except for major projects run by foreign companies. For instance, in a single housing project, often measurement was made using relatively primitive means like with ropes. Nowadays DM has 11,000 staff working in 34 departments (DM 2017). Dubai Land Department (DLD) is the other main institution involved in real estate which continues to grow and adapt. In 1960, DLD took over the functions of land registration, transaction management and documentation from DM. Nowadays, it controls 164 services (DLD 2017). In 2007, just before the GFC, the Dubai Government created the Real Estate Regulatory Agency (RERA) as the regulatory arm of the land department to oversee the relationship between all contracting parties in the

real estate market and organise property exchanges. Recently, UAE governments took further measures to reduce property speculation. In 2014, it added a real estate registration fee of 4% for registration title deeds fees (Appendix 5: Interview Responses 2016: Q1, p3, [R4]) which decreased transactions by 60% (ibid. 2016). The boom and bust have taught the market several lessons and have moved it to a more mature stage. A more mature and prudent market involves proper legislation, transparent regulations, oversight of GRE budgets and the control of liquidity via tight lending criteria to ensure properly planned and realistic (commercially sound) projects financed by sustainable levels of debt. The RVS plays a critical role in providing stakeholders with independent and transparent feedback. Another aspect which helps develop market maturity and builds confidence for international investors is greater statistical data transparency, regarding balance-of-payments estimates, demographic and labour statistics, debt and potential future liabilities (IMF 2014). Transparency is one of the critical factors which helps the market reach maturity. In this regard, the MENA Real Estate Transparency Index (2016) provides an interesting regional perspective on the improvement in UAE transparency since the 2008 crash. In the MENA region, Dubai is now the most transparent market, as illustrated in Figure 5.4 below.

FIGURE 5.4: MENA TRANSPARENCY INDEX 2016 (SOURCE: JLL 2016)

In Dubai, recent steps to improve transparency have involved central government legislation and institutional improvements. The Open Data Laws were designed to improve government information flows. RERA adopted some new measures to increase data access and tighten contract enforcement to help resolve disputes. Another step involved the introduction of standard residential leases to cut complexity. At the same time, DLD has strengthened green regulations for all newly-constructed buildings. However, despite these measures, JLL Global Real Estate Transparency Index (2016) ranks Dubai 48th out of 109 markets, placing it in the "semi-transparent" category alongside Brazil, Russia, India and China. To improve its transparency rank, JLL and other international real estate firms call for a citywide performance index to enable them to benchmark investments in Dubai real estate against the performance of other assets (Dickinson 2016).

5.3.3 Emerging markets and development pressures

One of the most significant changes to the Dubai real estate market was the 2002

introduction of freehold tenure for foreigners in certain restricted locales. Since 2002 Dubai Government permitted limited leasehold rights for villas of 99 years but only in selected locations. After the legal approval of freehold property law in 2006, non-GCC nationals (GCC stands for Gulf Cooperation Council, comprising Saudi Arabia, Kuwait, the UAE, Oman, Bahrain and Qatar) can obtain freehold rights (JLL 2015). One area to benefit from foreign capital was Dubai Marina. Although construction had begun a few years before freehold became available, the area greatly expanded afterwards. Like all property markets, Dubai's has evolved under various pressures, including legislation, regulation, crises, major developments, infrastructure or regeneration projects. In fast-changing cities like Dubai, new malls sprout and new roads are constructed very rapidly, altering the city form. Other internal signals can alter the investment landscape. Decrees by various Sheiks signal development opportunities and/or problems. Markets like Dubai are also exposed to external disturbances such as unexpected financial, macro-economic or geo-political shocks and natural disasters (e.g. tsunamis or oil spills). The RVS should capture internal and external change signals. In assessing these signals, valuers need prudence and a degree of professional judgment or meta-cognition about cycles. In short, cities change and markets are dynamic, and can become volatile. The RVS should include mechanisms to monitor signals and distribute reliable information about internal and external market conditions, liquidity fluctuations or sudden changes in capital market sentiment that can alter MV.

Taking into account the vulnerability of values to internal change and external pressures (dynamic context), for the RVS in Dubai to compete with mature markets like the UK, players need high quality intelligence on the forces shaping market values. Market players seek robust empirical property data on underlying contractual legalities, spatial and building characteristics and market dynamics. Hence, a robust RVS is very dependent on data quality (which should be relevant, valid and timely). The need for quality data becomes more acute when markets become illiquid and transaction data dries up, making judgment about empirical valuation difficult. The nature and source of information relied on should clearly

be stated and attention drawn to any limitations. Techniques to enhance intelligence include environmental scanning (ES), decision support systems (DSS) and data integration architecture (human and IT). As mentioned earlier, information restrictions in Dubai undermine valuation reliability although measures have been taken to improve the situation. To reach a mature level based on global best practice, Dubai continues to strengthen its valuation system. In this regard, several measures are worth mentioning. Nowadays, real estate brokers must register with RERA in order to operate in Dubai. The Government of Dubai issued Decree No. 43 in 2013 which limited property rent increases in line with the RERA Rental Index. Other steps to improve market confidence and transparency include real estate escrow accounts. Imposed by RERA in 2007, escrow regulations limit investor's exposure in off-plan projects by protecting their deposits until project milestones are met. The UAE Central Bank introduced mortgage caps or individual purchase borrowing limits (loan to property value ratio; LTV) except for UAE nationals under government housing programs. As well as transparency and the flow of quality information, a mature market also needs proper credit regulations to prevent excessive speculation and to limit defaults. In 2012, the Emirates Al Etihad Credit Bureau (AECB) was set up to provide banks and financial institutions with integrated financial information for credit. The AECB initiative generates comprehensive consumer credit information to help stabilize UAE real estate markets.

Overall, the analysis of the internal and external dynamic forces and market transformations to match with requirements for a mature market have been partially addressed in terms of transparency, information dissemination, institutional development, RERA rules and regulations suggest that further improvements are necessary in a process of continuous RVS adaptation.

5.4 Embedded research

The embedded research had several aims. The first was to confirm and enrich the secondary data housing market analysis and capture the overall situation. The second aim was to observe valuation practices in the Dubai Land Department.

Finally, the embedded research was intended to help identify suitable locales for site visits.

Practically, the main researcher was embedded continuously in the Dubai Land Department (DLD) on and off for several months at a time from 2014-2017. During this time, the researcher received strong support. He was able to freely attend meetings, observe panel valuations and trace housing transaction data. The researcher observed valuation procedures and interacted with employees in order to understand their capabilities and to discuss key valuation issues. The whole embedded stages confirmed the previous literature that housing markets in Dubai are segmented, imperfect and continuously changing. The next chapter outlines the mechanics of the current valuation system and identifies some deficiencies.

Dubai Land Department officials also advised on selection of Dubai locations for statistical housing transactions investigation. On 06/05/2015, discussions were held with Humaid al Shamsi (Director of the Registration Department), Darwish Abdullah (a formal valuer at the Dubai Appraisal department), Mohammed Al-Dah (Head of Technical Department) to identify locales, open to foreign purchasers and with strong demand.

5.5 Locales site visits

The fourth step in the exploration of the Dubai market involved site visits to five locales. The literature highlighted the critical influence of infrastructure, urban form, building design and structural quality on place identity (Adams and Tiesdell 2013; Kamrowska and Goledzinowska 2012) and real estate value, and therefore it is important to investigate the RVS in a variety of settings and geographically segmented markets to determine whether the current system can handle this complexity. This should help identify the issues which impact on value and the valuation process. The thesis selected the five locations which all offered residential properties, acceptable to international buyers and with significant

transaction volumes. All selected sites shared some common features but also diversity so that some are upscale (Burj Khalifa) while others are more downmarket (Warsan). The five locales are all newly-built development areas (from 2007-2015) and considered globally competitive markets which attract foreign investors (Schwab & Sala-i-Martin, 2011). They all have a range of attractive facilities and reasonable access to the city centre (Elsheshtawy, 2008). All locales include or have access to well-developed parkland or environmentally friendly ecological areas, regularly maintained by the government municipality (Al Marashi and Bhinder 2008). All include good quality Government and Private International schools. Entertainment facilities include major shopping malls, cinema complexes, a variety of high quality hotels and international cuisine restaurants. On the other hand, social structure, dwelling characteristics and the range of amenities, facilities and infrastructure varies across the locales (Sassen, 2004). For social structure, while most locations were designed for professional expatriates, some, like Burj Khalifa, were more iconic and upmarket. Across the locations, beach access varies. According to a recent study conducted by Holmes (2016) and supported by Royal Caribbean, Dubai claimed the top place for the world's best beaches. Dubai Marina has easy access to the local public beach whilst for other locales beaches can be reached by public transport. The Burj Khalifa area has its own artificial lake and water fountain systems.

5.5.1 Spatial segmentation in Dubai

In the popular western media, the Emirates and Dubai is advertised as a pleasant holiday destination (Whitelocks 2016). The reality is more complex. Map 1.1 (Ch1) illustrates that each emirate in the Federation is distinct. For the qualitative examinations here in Chapter 5, the focus is on the Emirate of Dubai. Map 5.5 below illustrates its spatial breakdown. Each conurbation in the Emirates is distinct, as are intra-urban locales. Multiple positive and negative factors (status, socio-economic profile, climate risk, waste dumps, access to jobs and facilities, air quality, etc.) influence the attractiveness or undesirability of a residential neighbourhood or locale. Other considerations are the unique dwellings space and

structure (site, design, structure, energy-efficiency, area, views and cultural suitability to buyer segments). To determine MV, the information system should evaluate locales and building/dwelling quality and assess its market desirability. Unusual properties complicate the valuation challenge.

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FIGURE 5.5 DUBAI MAP LOCALES SAMPLE FRAME

(SOURCE: DUBAI LAND DEPARTMENT, 2015)

5.5.2 Dubai Marina ('DM')

Located on the site of a former public beach beyond Burj Al Arab, the first phase of Dubai Marina finished in 2003. DM is a westernised, high-density district which comprises around 200 modern high-rise towers (freehold), commercial and hotel complexes. Landmarks include its famous Yacht Club, Dubai Marina Mall, luxury hotels and Dubai Media city. Beachfront properties command a premium and care for more up-market tourists but a vibrant, if artificial, social lifestyle and pretentions of luxury, which also attracts multicultural, young professional, expatriates who work in its range of commercial and retail outlets. Adequate parking and public transport links (metro and bus stations) enables access to a range of entertainment and facilities such as schools, clinics, and parks. Entertainment amenities include cinema complexes and a diverse range of restaurants. From the start, dwelling price growth has averaged approximately 10% (DLD statistical data, Technical Department, 2015). GRE developers involved with DM include Emaar ('E'), Dubai Properties ('DP'), and Meraas ('M'). Projects completed include Jumeirah Beach Residence (DP), Dubai Marina (E); and Blue Waters (M). Construction continues.

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FIGURE 5.6 DUBAI MARINA SITUATION (SOURCE: DUBAI LAND DEPARTMENT SURVEY SECTION DATABASE, 2016)

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FIGURE 5.7 DUBAI MARINA ASPECT (SOURCE: DUBAI HALCON REAL ESTATE, 2016)

5.5.3 Burj Khalifa ('BK')

Burj Khalifa is a new, iconic, up-market, central district, centred on the world's tallest building, the eponymous *Burj Khalifa*. The 1.5 sq.km district consists of freehold modern and stylish towers surrounding Dubai's main luxury landmark. Completed in 2010, the *Burj's* 828sqm rises 160 floors and it is the main point for celebrations and firework displays. (Burj Khalifa Facts and Figures official website, 2016). Close by is Dubai Mall, the world's largest retail floor space, which offers a large choice of restaurants, cinema complex, luxurious water features (including an aquarium). BK has all the usual amenities for catering to ambitious global elites, including a Canadian university, branded private schools, international banks and a range of entertainment facilities, including an ice-rink and theme parks. Infrastructure incudes good metro facilities, bus stations, large underground parking. Population growth is around 10% annually but it is increasing as new towers emerge. Its diverse, ambitious residents are largely young Arab and Asian professionals who work in banking, real estate; and the retail and hotel sectors. Emaar built the *Dubai Mall* and the *Burj Khalifa* tower and *Emaar Square* (completed 2011). (Mohamed Al Dah -2015)

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FIGURE 5.8 BURJ KHALIFA (SOURCE: DUBAI LAND DEPARTMENT SURVEY SECTION DATABASE, 2016)

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FIGURE 5.9 BURJ KHALIFA (SOURCE: OFFICIAL WEBSITE, 2016)

5.5.4 Warsan First ('W1')

A range of warehouses, business facilities, offices at affordable prices, small medical centres, *Desert Palm Polo Club* has been established since 2008. Separated into country clusters (China, UAE, England, Italy, Russia, Morocco, Spain, France, Persia, Greece, etc.), this is a highly dense built-up area, consisting of 3-4 storey buildings, affordable residential properties, and strong links with the Chinese commercial sector. *Warsan1* is one of the most affordable locations in Dubai, comprising of a multicultural (but mainly Asian) community, with a very high percentage of Asian business entrepreneurs. Approximate population growth here is around 7-8%, with a potential growth to extra 2-3% per year. Employment opportunities are generally in the commercial trading sector, particularly hotels and restaurants. Some facilities are very attractive to local and expatriate residents, such as *Dragon Mall*; a wide range of warehouses, business facilities, offices at affordable prices; small medical centres; and the Desert Palm Polo Club. The major developer is *Nakheel* (NK), which has already completed such projects as an International city and Dubai Textile city. Infrastructure offers medium access to major roads, bus services, limited school and university opportunities, average architectural design, and no high-rise blocks. Warsan1 comprises of 3-4 storey residential and commercial blocks. Total area size of this location10 sq. km (DLD Technical Survey Dep. 2015).

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FIGURE 5.10 FIRST WARSAN (SOURCE: DUBAI LAND DEPARTMENT SURVEY SECTION DATABASE)

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FIGURE 5.11 DETAILS FIRST WARSAN (SOURCE: DUBAI LAND DEPARTMENT SURVEY SECTION DATABASE, 2016)

5.5.5 Thananaya Third ('T3')

Thananaya Third is a multinational vibrant community established in 2008. It hosts a significant iconic landmark of the UAE – the nation's oldest Golf Club. The population consists mainly of young professionals and families, as well as foreign expatriates living in gated communities. The average growth of this population is approximately 7-8% a year. The major employment opportunities are in such sectors as telecommunications and media, hotels, business facilities, Golf Club and other leisure centres. A range of facilities in this area offer easy access to metro and bus services, close proximity to international schools, medical clinics, shopping malls and restaurants. The main developer for this area is *Emaar*, which completed the *Greens* and *Lakes.* Well-developed infrastructure enables its residents to have good access to the international airport, metro and bus stations; easy access to the beach and the Palm Island. Urban structure comprises mainly of high quality architecture, spacious comfortable buildings, and business offices. The total built-up area including the park zone is 12 sq km.(technical and survey Dep and statistical Dep 2016)

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FIGURE 5.12: THANANAYA THIRD ('T3') (SOURCE: DUBAI LAND DEPARTMENT GIS SECTION DATABASE, 2016)

5.5.6 Thananaya Fifth ('T5')

T5 is a luxury lifestyle, free-zone area close to *Dubai Marina*. Established in 2009, T5 has a multicultural, westernised community. It is a vibrant location, offering a luxury lifestyle; a free-zone area with many business opportunities and close proximity to *Dubai Marina*. The population has a steady growth of approximate 7-8% comprising mainly of young western professionals and their families. The area offers a wide range of job opportunities in *Dubai Multi Commodities Centre*; Government offices, Hotels, Retail, Banks, UAE free trade zone centre. Facilities offer good range of schools, hospitals, parks, hotels,

entertainment centres, shopping malls, supermarkets. The major developer is *Nakheel*, which completed *Jumeirah Islands, Jumeirah Park, Jumeirah Heights, Jumeirah Lakes*. Good infrastructure includes metro and bus stations, good access to the *Jumeirah Beach*, proximity to Golf club and major highways. The area consists of high quality buildings and towers covering approximately 12 sq km. (Abdullah Saleh technical and survey Dep and Tammam statistical Dep 2016)

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FIGURE 5.13: THANANAYA FIFTH ‘T5 (SOURCE: DUBAI LAND DEPARTMENT, 2016)

Having described each of the five locales, the thesis summarises their key characteristics in Table 5.2 below.

TABLE 5.2: KEY CHARACTERISTICS OF FIVE RESIDENTIAL HOUSING MARKETS SELECTED FOR EXAMINATION (SOURCE: AUTHOR 2016)

Criteria	**DM**	**BK**	**W1**	**T3**	**T5**
Major projects	***Dubai Marina*** (E); Jumeirah Beach Residence (DP), Blue Waters (M)	***Dubai Mall/ Burj Khalifa*** Emaar Square (E)	***Internation al City***; ***Dragon Mall*** Dubai Textile city	***Greens, Lakes***	***Jumeirah*** Islands, Jumeirah Park, Jumeirah Heights, Jumeirah Lake Towers
Established	2003	2009-11	2008	2008	2009
Place character	High density tourist & expatriate	Prestige central area	Average market, Asian	High-end multinational	Western vibrant
Major developers	E, DP, M	E	N	E	N
Built forms	Freehold towers	Iconic luxury freehold towers	Low-end, low- rise residential or commercial blocks (3-4 storey)	Premium commercial and villas	High-end towers
Demographics	Mainly young western professionals	Multicultural young professionals	Multicultural, mainly Asian entrepreneurs	Young professionals and families (gated expatriate communities)	Young mainly western professionals, families
Population Growth	Average 10% per year	Average 10% per year	Approx. 7-8%	Approx. 7-8%	Approx. 7-8%

Employment	Mainly retail commercial (Dubai Marina Mall, Dubai Media city)	Diverse (banking, property agents, real estate developments; retail, hotels)	Commercial trading sector; hotels, restaurants	Telecommunications, media; hotels, business facilities	Commodities Centre, Government offices, hotels, retail, banks, UAE free trade zone centre
Facilities	Range, yacht marina	Dubai Mall,	Dragon Mall;	Golf Club, beach and the Palm Island	Range, beach
Transport	Metro, tram	Metro, bus, underground parking	Roads, bus services	Metro, bus	Metro, bus
Area size	4 sq.km	1.5 sq.km	10 sq. km	12 sq. km	12 sq.km

The locale site visits enriched the market analysis. This helped to understand how the structure and dynamics of specific UAE housing markets can influence values. It is obvious from summary Table 5.2 above and the earlier detailed locales descriptions that each of the five selected locales is quite distinct from the others. Emirati property markets are subject to intense development pressures and are spatially divided or segmented. The implication is that a robust Emirati RVS will need substantial information to adjust valuations, according to location. The qualitative examination of the Dubai market, involving discussions, secondary data reviews, embedded research and site visits is now complete but a full understanding of submarket structure and dynamics calls for statistical examinations of housing transactions.

5.6 Statistical market analysis

Having looked at the general Emirati economic backdrop and qualitatively examined a sample of housing sub markets, Chapter 5 now employs statistical analyses to, first, supplement previous qualitative investigations and, second, to determine whether valuations are reasonable. Generally, statistical house price models are either macro or micro scale and use either univariate (such as GARCH[3] or ARIMA[4]) or multivariate approaches (Brooks and Tsolacos 2010; Rosen 1984) which, at a micro level, become hedonic housing price models. In practice, this fifth part of the market exploration involves several statistical steps, consisting of examining descriptive statistics, regressions and other statistical models. The data for the statistical analysis comes from DLD transactions records for the five sampled locales. Table 5.3 gives the descriptive statistics.

5.6.1 Descriptive statistics and chart

Transactions were analysed using SPSS to generate descriptive statistics output as illustrated in Table 5.3 below. Some of the results in the output appear suspect and suggest errors in the RVS in terms of data integrity. First, in terms of sales prices, the zero minimum suggests that some sales were not at arm's length. Also, the maximum price of AED 340m appears excessive. The minimum size of 0.61 m2 is also problematic. These errors undermine confidence in the ability of current RVS practices to clean and check data (fiduciary duty).

[3] Generalised Autoregressive Conditional Heteroscedasticity

[4] Autoregressive Integrated Moving Average based on lagged prices (AR), lagged error term (MA) and the degree of integration (number of differences required to make a series stationary)

TABLE 5.3: DESCRIPTIVE STATISTICS FOR THE FIVE SAMPLED LOCALES IN DUBAI [SOURCE: DLD 2015]

Table 5.3 above illustrates that the sample size of 97,549 valid residential sales transactions with complete data on the four available variables of sales price, floor number, internal property floor area and date of sale. Immediately, it is obvious that there is a wide spread of sales prices from 0 (a non-arm's length sale) to AED 340m (~£56m) with a variance of AED 18.9m. The mean price was AED 2.31m (~£385k) which seems reasonable. Property mean size is 107m^2 which again looks reasonable, given that the average UK dwelling size in 2012 was around 92m^2 (Savills 2012). Floor heights ranged from 1st floor to 901st, so clearly there are some issues with data integrity since secondary sources indicate *Burj Khalifa* has only 163 floor (see previous submarkets section) with a typical apartment likely to be on the 14th or 15th floor. Transactions covered the period from 30th April 2007 to 18th July 2015 which covers nine years, covering the full range of the property cycle. One issue which the table flags is that the sample size for each locale is different and this is illustrated in the chart below. Figure 5.14 below illustrates the breakdown of the transactions with the majority being in Dubai Marina (37.4%) and First Warsan, centred on *International City* (23.4%). The difference in the area of the different districts (see Table 5.2 previous) and variation in dwelling density account for these figures.

FIGURE 5.14: BREAKDOWN OF THE SAMPLES LOCALES TRANSACTIONS (SOURCE: DLD 2015)

Overall, the study reveals reasonable descriptive statistics (e.g. a mean property size is 107m^2) but there remain some issues with data integrity (e.g. floor heights).

5.6.2 Sales price regression without *Locales*

The site visits confirmed that each of the locations, while meeting minimum international expectations, had a different character and were separate geographical sub-markets. Here, the research again confirms the importance of submarkets. When SPSS ran an Ordinary Least Squares ('OLS') regression without including *locales* (segmentation), the model failed. Dependent variable = *SalePrice* with predictors (independent variables): *Constant, Floor*, *Date*, *Property Size* but without a *Locales* variable. Regressions check how the variance of the dependent variable alters in line with the independent variables (correlation) to check their collective and individual impact. Table 5.4 summarises *Model_3.2* results.

TABLE 5.4: OLS REGRESSION WITHOUT LOCALES

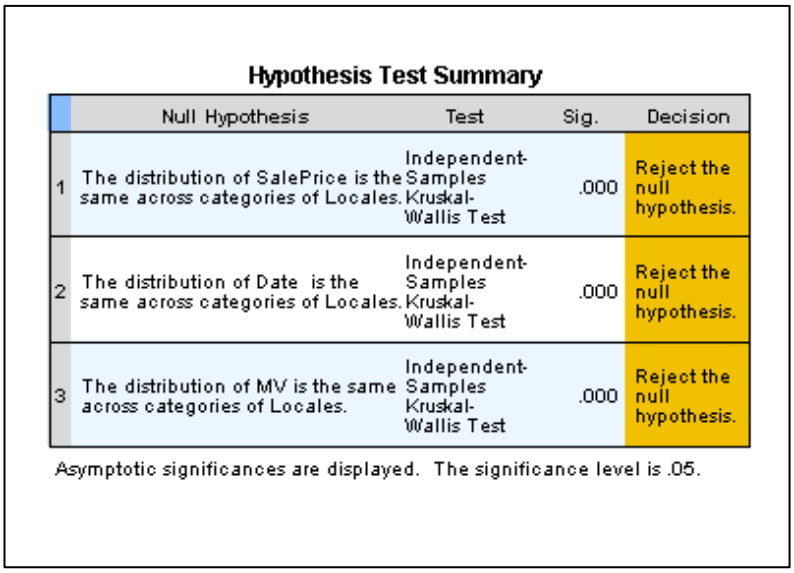
Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.084[a]	.007	.007	19,015,123.833

Table 5.4 illustrates the OLS model has a very low adjusted R^2 (0.7%) which indicates that the model variables, without *Locales*, explains less than 1% of the price fluctuation, making them poor predictors of price, and confirming market segmentation.

5.6. 3 Nonparametric test of sample independence

To confirm the importance of sub-markets, nonparametric tests ('NPT') were conducted to establish if the submarkets are independent. The advantage of nonparametric tests is that the assumption of a normal distribution is unnecessary (Hollander et al. 2014). NPT used the grouping variable of *Locales* and an alpha criterion of 5%, the Kruskal Wallis Test (Ibid 2014) results in Table. 5.5 below indicate clearly that the locales are statistically, as one would expect, very different.

TABLE 5.5: NON-PARAMETRIC TEST OF SAMPLE INDEPENDENCE [AUTHOR 2015]



Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of SalePrice is the same across categories of Locales.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
2	The distribution of Date is the same across categories of Locales.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
3	The distribution of MV is the same across categories of Locales.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The previous two tests confirm the importance of location and submarkets for valuation. This suggests that the RVS needs either a very sophisticated electronic data collection system (GIS) or competent valuers with an excellent knowledge of local market conditions.

5.6.4 Nearest Neighbour Analysis

Nearest Neighbour Analysis ('NNA'). NNA is an exploratory statistical technique which classifies cases based on their similarity to other cases via machine learning to recognize patterns of data without requiring an exact match (IBM 2017). It is a clustering technique which finds closest (or most similar) cases at a given point. NNA used 70% of transactions (cases) to 'train' itself and then to predict the impact of locales on *Sale Price Property Size* and *Floor* variables for the reaming 30% 'holdout' cases.

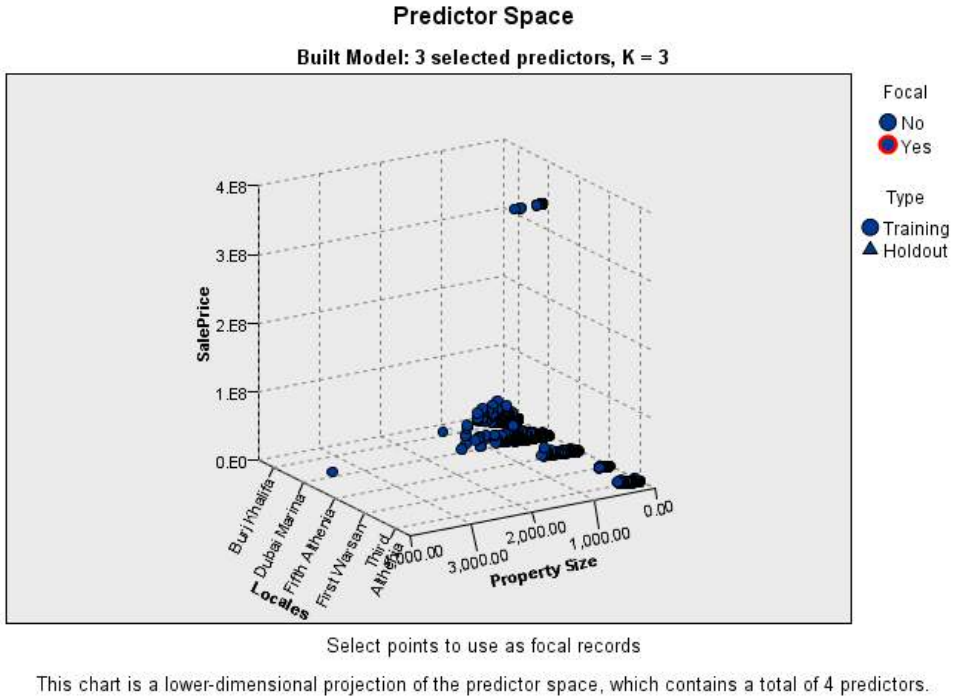


FIGURE 5.15: NEAREST NEIGHBOUR ANALYSIS OF FIVE SPATIAL RESIDENTIAL SUBMARKETS IN DUBAI 2007-2015 (SOURCE: AUTHOR 2015])

Fig. 5.15 illustrates that in terms of price, BK and DM include some very high-end properties that differentiate them from other locales. Some relatively large properties in DM distinguish it from other locales.

With the statistical examination of market structure and dynamics confirming segmentation, the thesis now undertakes a quantitative assessment of valuation output reasonableness (to establish whether or not the Emirates has a valuation problem).

5.6.5 Testing the reasonableness of valuations

The first OLS (Ordinary Least Squares) regression showed the importance of *Locales*, so to test the reasonableness of the valuations, the research restricted its statistical analysis to one particular area to avoid complications. For properties

where *Locales = Burj Khalifa*, the second regression model has DLD estimated MV (instead of realised *Sales Price*) as the dependent variable against independent variables *Price, Floor, Date, Property Size*. The adjusted R^2 is .705 (Table 5.6 below) which implies 70.5% of MV is explained by these predictors, taking account of degrees of freedom. However, although all the model variables are significant (see Table 5.6 below), the *Constant* is negative which is unexpected and suggests the model is unreliable. Simplistically and ignoring the *Constant*, the model suggests that a property on 20^{th} floor of BK with an internal area of $100m^2$ would cost 20*AED 37,484.4 + 100* AED33, 996.7 = AED 4,139k or ~£689k.

TABLE 5.6: MV BURJ KHALIFA REGRESSION COEFFICIENTS

Coefficients[a,b]						
Model 2		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-222624106.129	37334474.453		-5.963	.000
	Date	.016	.003	.165	5.915	.000
	Property Size	33996.744	1361.883	.721	24.963	.000
	Floor	37484.388	4360.752	.248	8.596	.000

a. Dependent Variable: MV b. Selecting only cases for which Locales = Burj Khalifa

The Burj Khalifa data suggest reasonable valuations, allowing for some basic quality differences but the negative constant gives some concerns about modelling as expected, given likely outliers and the limited quality data so that views over the sea or over the Burj are not considered.

5.6.6 Automatic Linear Modelling

One explanation for weakness in the previous model (BK MV regression see 5.6.5 above) is the presence of outlier cases and variable value distribution (MacInnes 2016). Property outliers are very different so that model errors vary widely (which undermines the statistical assumptions of normal cases distribution with constant error variance). Logically, this makes sense since the quality and prestige of high-end apartments at the top of *Burj Khalifa* distinguish them from an 'average' BK apartment in an outlying tower. Automatic Linear Modelling ('ALM') is one way to control for the impact of outliers. This research used the ALM technique with auto data preparation. The target field = *MV* and inputs = *Locales, Date, Sales Price, Property size, Floor*. Unfortunately, as DLD only provided a limited number of valuations, ALM of *MV* excludes 98% of the 104,401 sales transactions. Table 5.7 illustrates automatic data adjustments required to generate the ALM results in Fig. 5.16. The figure illustrates that, after

recommended outliers and other adjustments, Automatic Modelling, using a forward stepwise approach, on the reduced sample of 2,065 case (property) inputs generated reasonable valuations. The result confirms RVS Principle 1: [Output]: reasonable valuations.

TABLE 5.7: ALM DATA ADJUSTMENTS NECESSARY TO GET GOOD MV MODEL FIT

Automatic Data Preparation

Target: MV

Field	Role	Actions Taken
(Date_months)	Predictor	Derive duration: months Trim outliers Replace missing values
(Floor_transformed)	Predictor	Trim outliers Replace missing values
(Locales_transformed)	Predictor	Merge categories to maximize association with target
(PropertySize_transformed)	Predictor	Trim outliers
(SalePrice_transformed)	Predictor	Trim outliers Replace missing values
SalePrice	Predictor	Exclude constant predictor

If the original field name is X, then the transformed field is displayed as (X_transformed). The original field is excluded from the analysis and the transformed field is included instead.
One or more records were excluded because of a predictor or target that i missing, a frequency weight that is missing or less than one after rounding a regression weight that is missing, negative, or zero.

To improve modelling, Table 5.7 highlights the main issue is to get rid of outlier transactions. Competent valuers operating a mature RVS need to have good data which identifies iconic property outliers.

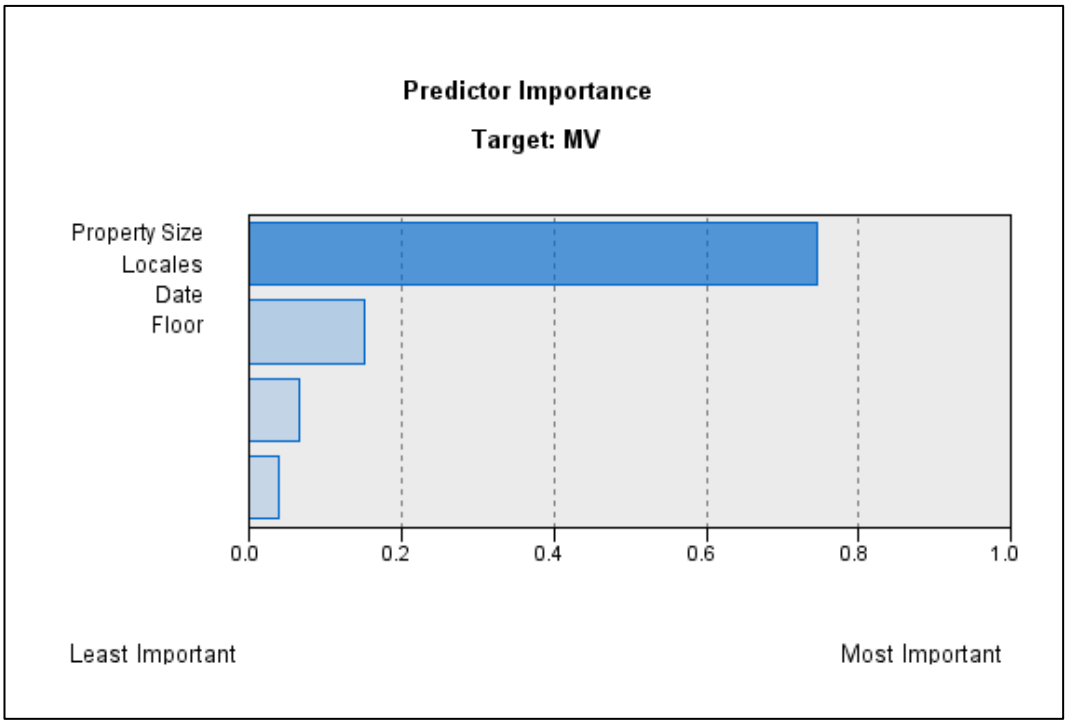


FIGURE 5.16: ALM IDENTIFICATION OF MOST SIGNIFICANT VARIABLES

Figure 5.16 flags the importance of measurement (see RICS measurement standards) since property size is a critical value driver.

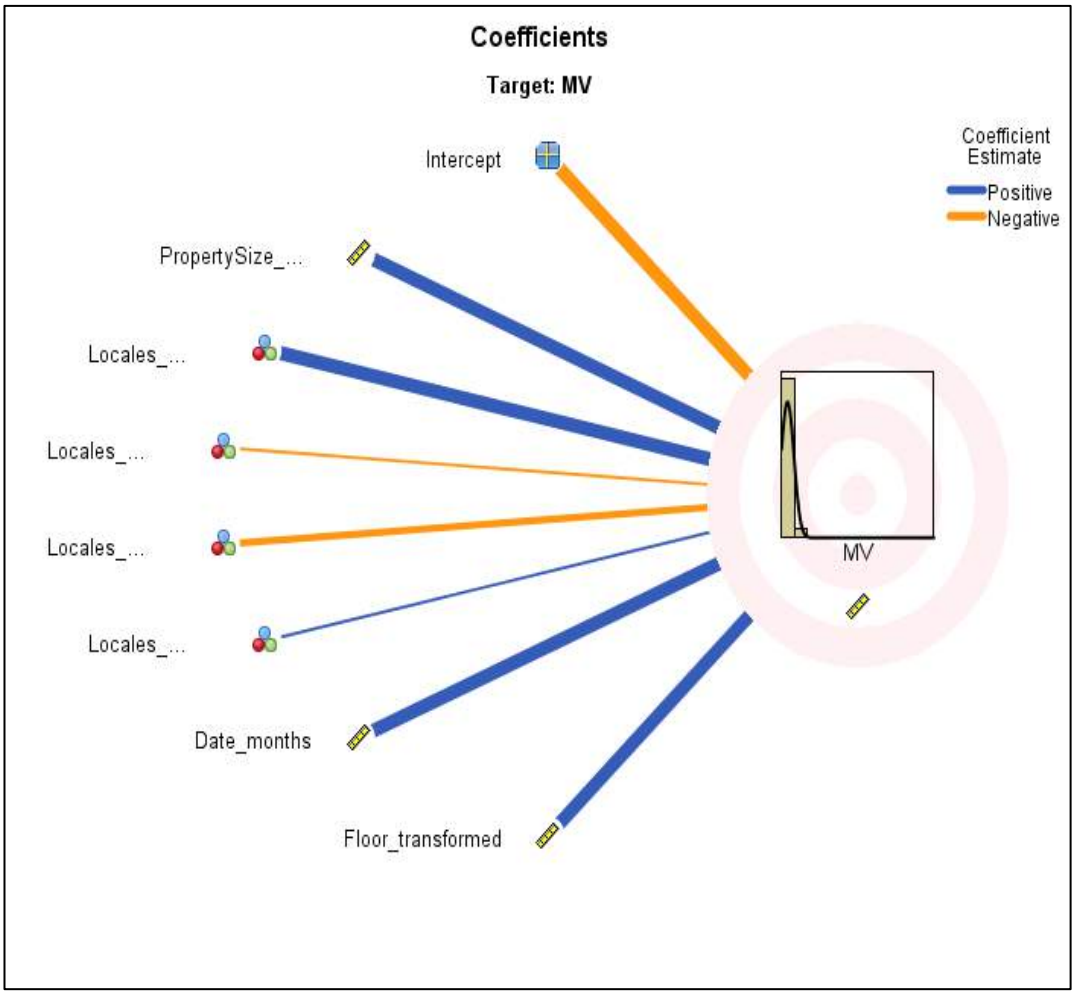


FIGURE 5.17: ALM MODEL OF MV AGAINST TRIMMED DATA (SOURCE: AUTHOR 2015)

Figure 5.17 illustrates the factors impacting on MV once the outliers have been eliminated. All impacts are as expected, with some downmarket locales reducing prices whilst more attractive ones increase prices. The negative intercept remains a concern. This suggests that aspects of the valuations appear obscure or at least the RVS information system is unable to capture sufficient data to enable mass appraisals or Automated Valuation Modelling (AVM'). Fig 5.18 below shows the non-normal nature of case residuals (property heterogeneity).

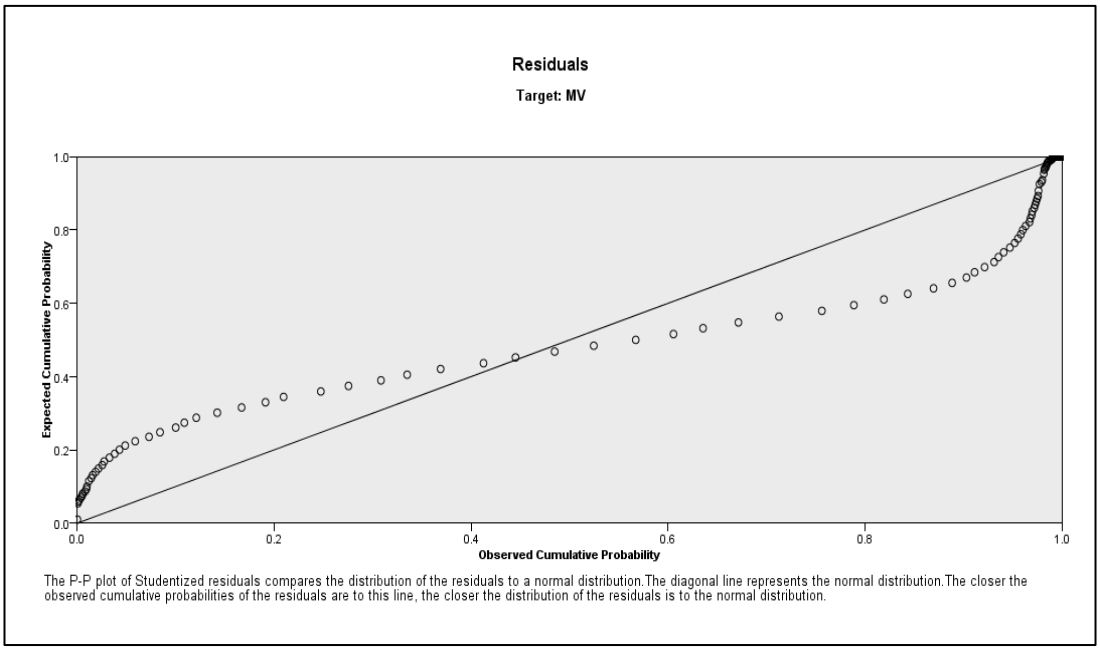


FIGURE 5.18: PP PLOT OF STUDENTIZED RESIDUALS – ILLUSTRATING NON-NORMAL DISTRIBUTION OF MV RESIDUALS. (SOURCE AUTHOR 2015)

Figure 5.18 illustrates that, at the bottom end of the market, positive residuals results from insufficient data on the negative factors reducing prices. For premium properties, on the other hand, the data deficiency concerns insufficient data on quality price drivers.

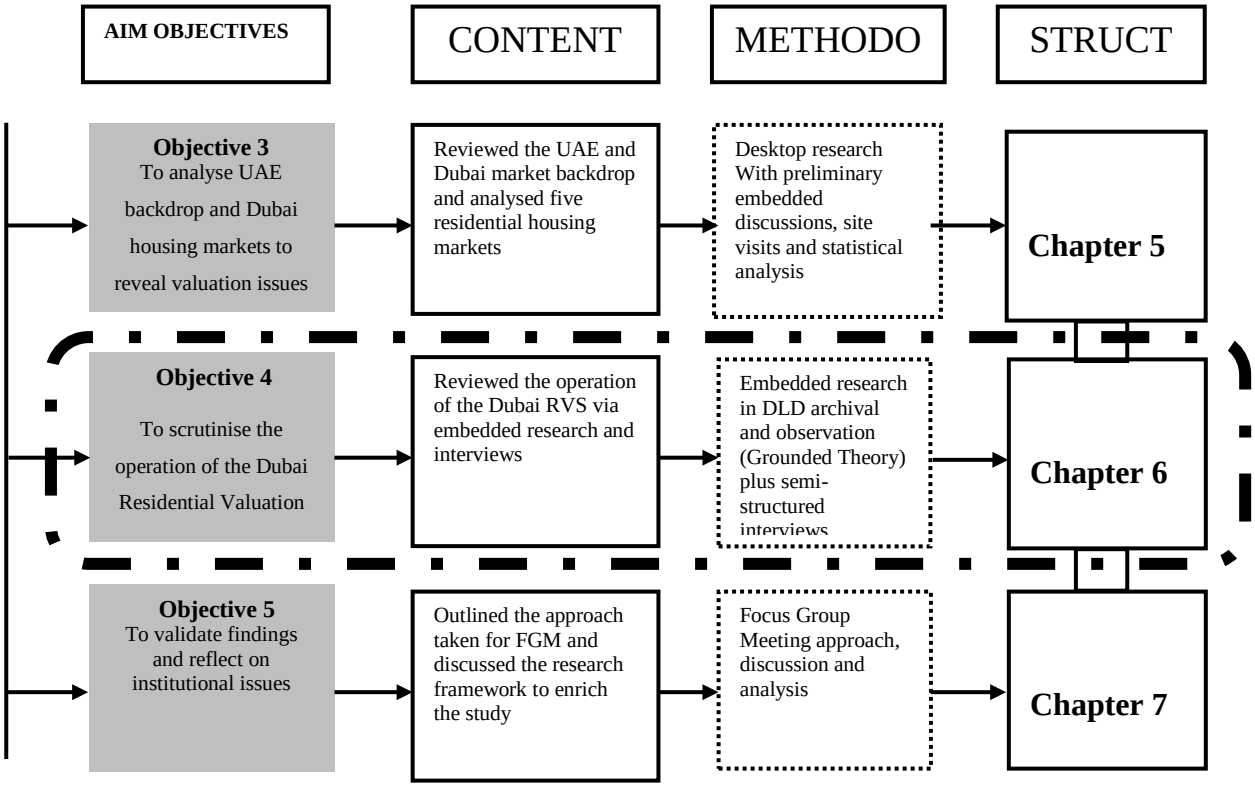
To conclude, the statistical market analysis investigated over 100,000 residential property sales transactions in five Emirati locales. The descriptive statistics, the initial OLS regression, the Non-Parametric Tests and Nearest Neighbour Analysis all confirm the five submarkets are very different (segmentation). The spatially restricted regression of MV and Automatic Modelling, suggested that valuations were reasonable valuations. The result confirms RVS Principle 1: [Output]: valuation output reasonableness.

5.7 Conclusion

The fifth exploratory chapter of the thesis completed involved five steps with two purposes – first, to understand the structure and dynamics of submarkets and, second, to establish the reliability of DLD valuations. Qualitative research involved preliminary discussions, desktop analysis and site visits (in 2015-2016) to explore the Emirati institutional landscape and observe Emirati valuation practices and identify fieldwork locales for sites visits. In 2016, the researchers visited five Dubai developments for detailed examination. The final exploratory stage involved statistical analysis of property transactions in five locales over 2007-2015. The discussions and secondary data market analysis noted the importance of global credit markets and the Emirati macro backdrop on values. It found that significant regional and commodity price risks expose UAE property markets to downturns in global sentiment, credit and trade. Data for the quantitative research into structure and dynamics and valuation reasonableness consisted of one hundred thousand Dubai property transactions relating from 2007 to 2014 in five sampled locales. Statistical analysis supported previous qualitative market examinations that spatial submarkets in Dubai (and therefore probably submarkets in other Emirates) were significantly different (segmentation). Particularly, as expected, upper-floor *Burj Khalifa* properties were outliers. Second, regression models suggested *Locales* are a significant regression price predictor. A sample of MVs were investigated using, first, ordinary regressions restricted to BK properties to control for *Locales* and, second, Automated Linear Modelling. The results suggest reasonable valuations, although significant outliers suggest current RVS systems fail to capture sufficient data to undertake reliable automated valuations. Accordingly, in terms of RVS Principle 1 [Output] Emirati valuations appear reasonable compared to realised prices, confirming the scenario that UAE-RVS is reasonable). However, there were a lot of data errors which illustrated weakness in oversight, auditing, checking and cleaning which compromises the fiduciary duty of professional care (RICS 2017). A complete answer to the main research question needs to establish the valuation intelligence systems open to agents, the operational mechanisms in DLD, trust among

stakeholders and the salience of valuation standards. To gain operational insight, the next chapter of the thesis uses the privileged position of DLD embedded research to investigate archival material, observe valuation procedures and to interview a range of Emirati valuation stakeholders.

Chapter 6: Dubai valuation practice: embedded research and interviews



6.1 Introduction

The previous chapter of the thesis reviewed the economic backdrop to the UAE and five Dubai locales and found that the segmented housing markets are exposed to significant geopolitical and cyclical risks. The literature review in Chapter 2 suggested that psychology (animal spirit market sentiment) could cause irrational exuberance (Akerlof and Shiller 2009; Shiller 2105). There was some indications that the RVS valuations were reasonable compared to realised prices. However, transaction outliers and data errors suggest weaknesses in fiduciary (legal) duty of care [RVS Principle 1]. For a complete answer to the Emirati valuation system problem, further investigations were considered necessary. Chapter 6 expands on embedded archival research, observation and discussions and also conducts around thirty stakeholder interviews.

As outlined in Ch4: (Methodology), the study used the RVS Explanatory Framework to structure research. Hence to determine which of the four remaining RVS scenarios dominates in Dubai, Chapter 6 analyses whether the system implemented Principles 2-5. Principle 2 related to intelligence and considered whether or not the RVS information system used rich information field to generate reliable data. The third principle concerns the capabilities to check whether the RVS was properly structured and governed, with competent administration, supported by appropriate technologies. Signs of competence include professional staff with the skills and experience to cope with complex valuations. Trust (Principle 4) is concerned with whether RVS players trust the system or its valuation outputs. Finally, compliance with Principle 5: [Standards salience] involves checking by asking or observing whether valuation standards are widely disseminated, discussed and best practices are being implemented. The thesis conducted the Operational Phase in two steps. First, the embedded research conducted some institutional analysis, looking at archives, documentation, observation of practices and discussions. The second stage involved semi-structured interviews with valuation experts and partitions.

6.2 Embedded investigation

Embedded fieldwork (Operational Phase) was conducted over 2015-16 in DLD but also, in property development practice, where the author engaged broadly with the Emirates valuation system in Fujairah and throughout the UAE. The privileged embedded position facilitated several lines of investigation. The first line was archival research to obtain all the duties of the valuers and other stakeholders and to trace DLD and Emirati valuation documentation. The second line of enquiry was to attend several Valuation Committee meetings and to observe valuation administration. Finally, further detailed discussions were held with valuers, and the broader RVS community in DLD as well as wider discussions with a range of RVS players.

The main researcher worked as a developer, property owner and property manager in Fujairah for a decade from 2006 and experienced the full range of UAE administrative documentation relating to approvals and valuations. Over the period 2015-2016 inclusive, the author made several fieldwork trips to Dubai to follow the DLD Valuation Department over several months but also to engage with the Emirati system. DLD archival investigations involved access to valuation documentation, checking a sample of archival valuation data to document operational procedures, assessing valuation standards compliance and judging institutional valuation capability.

In 2010, DLD introduced the Appraisal Department, overseen by engineer Mohammed Al Dah, who employed four staff tasked with setting valuation standards and procedures. Prior to 2010, the valuation process involved first recording a transaction at the Registration Department. In 2010 DLD's newly established Appraisal Department (AD) began its operations. The first AD manager introduced the first draft of Emirates Book – Valuation Standards (EBVS) published on the 27 September 2010 (see appendix 6.1). Today, DLD AD has 6 members with two branches – the Assessment Section (responsible for assessment) and the Property Information Gathering Section (responsible for

gathering data). From 2010-2014, the department produced the Emirates Valuation Book. Since its inception, the executive director has organised many valuation panels, including the current Dubai Appraisal Committee Panel (DACP). Usually these panels have eight valuers who are selected by the executive director of the appraisal department *Dubai Land Department* (DLD) (DLD archives 2016; see Appendix 6.2). Several stakeholders attend these valuation panels, including DLD (RERA, Technical Section and Appraisal Section), Dubai Municipality (Urban Planning and Surveying and Construction and Permits). DM experts provide guidance on construction costs and verify reasonableness of the valuation as they have access to property data, relating to usage conversion and for land acquisition or guarantee of title deeds. DM has an interest in valuations because it generates income. Local developers also attend the panel along with those who are active in the market and are knowledgeable about property prices and market dynamics.

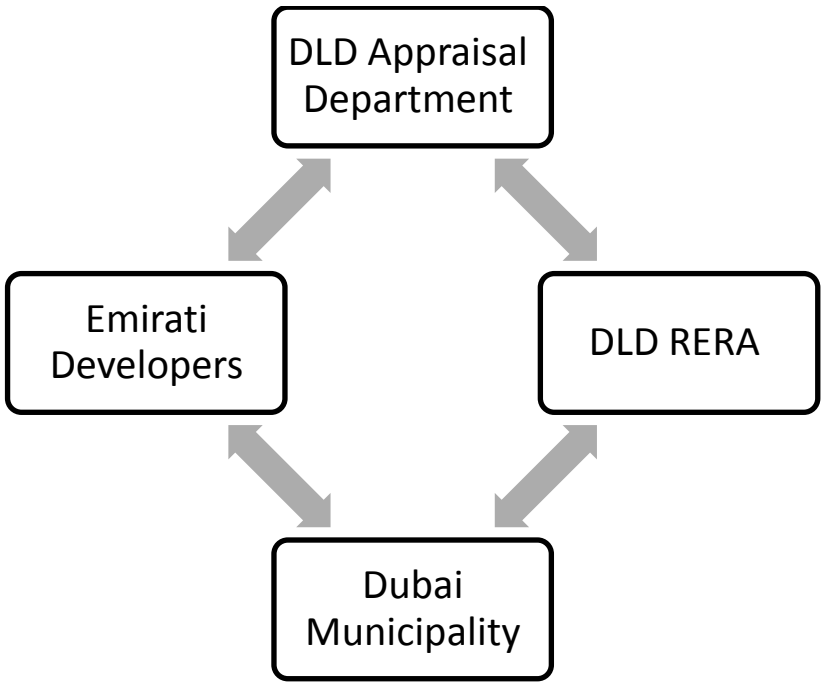


FIGURE 6.1: DUBAI APPRAISAL COMMITTEE PANEL (DACP) INTERACTIONS (SOURCE: AUTHOR 2015)

Figure 6.1 illustrates that Dubai Committee Appraisal Panel (DCAP) involves different stakeholders. Each participant has a specific function. DLD hosts the

meeting and oversees the valuation panel and procedures. The Appraisal Department has to prepare the meeting room and sends a request to each of the panel members to attend the meeting. Within the Appraisal Department there are two sections. The main role of the Documentation Section is to gather and collect the form with the attached supporting papers such as title deeds, lease contracts, and owner identities. The Audit Section verifies all the paperwork and sends it to the Technical Department with instruction to inspect the target properties. The head of the Technical Department (DLD) assigns the request from the Audit Section to a particular surveyor who visits the subject properties. He first undertakes desktop research using dedicated the DLD spatial database and more generic GIS software. If occupied, the surveyor contacts both the tenant and the landlord. He must document, measure and photograph the subject properties to prepare his final technical report, which includes the building details such as area and condition. The completed report is sent to the Appraisal Department.

RERA must attend the panel to check that the legal procedures for conducting the Valuation Panel. The main tasks for RERA are to provide assurance that the valuation is based on arm's length transactions and that there is no interference which distorts valuation. While attending the panel, it became obvious that RERA did not pay attention to International Valuation Standards. For example, neither the valuation purpose, nor basis of approach is fully articulated.

Active brokers on the Panel play a critical role in determining that the valuations are reasonable, given the reality of market conditions. The embedded observation and discussions revealed that these brokers, although they had a great deal of experience, were not formally qualified valuers and knew very little about International Valuation Standards. In times of liquidity, this involvement of active agents is workable. The problem arises in times of either boom or when liquidity is tight after a market correction or crash. Also, where building is unique or there is no commercial market and less common approaches like depreciated replacement cost is necessary, the reliance on brokers becomes problematic. The other concern revealed by the embedded observation and discussion is that there could be issues of independence and potential conflict of interest where brokers

are active in projects or deals which they are supposed to value for the public good, independently of any commercial interests.

Clients need valuation for a variety of different purposes such as for a mortgage or for Zakat; Granted transfer; Investor visa; Bank; Company Audit; Granted Freehold, Dubai Municipality; Sales, Courts/Hereditary. The first step in obtaining a formal valuation certificate is to complete a Valuation Request Form (VR1), in four parts. VR1 includes applicant details (organisation/individual; name; mobile; email; company). The other main information required relates to the purpose of valuation. DLD requires subject property details: Type of building/ Office/ Villa or compound; flat, building, Dubai Municipality number, villa name, unit number, neighbourhood, area size, total built up area, number of floors, percentage of completion, completion date, number of units, and annual rent. (Appendix 6.3).

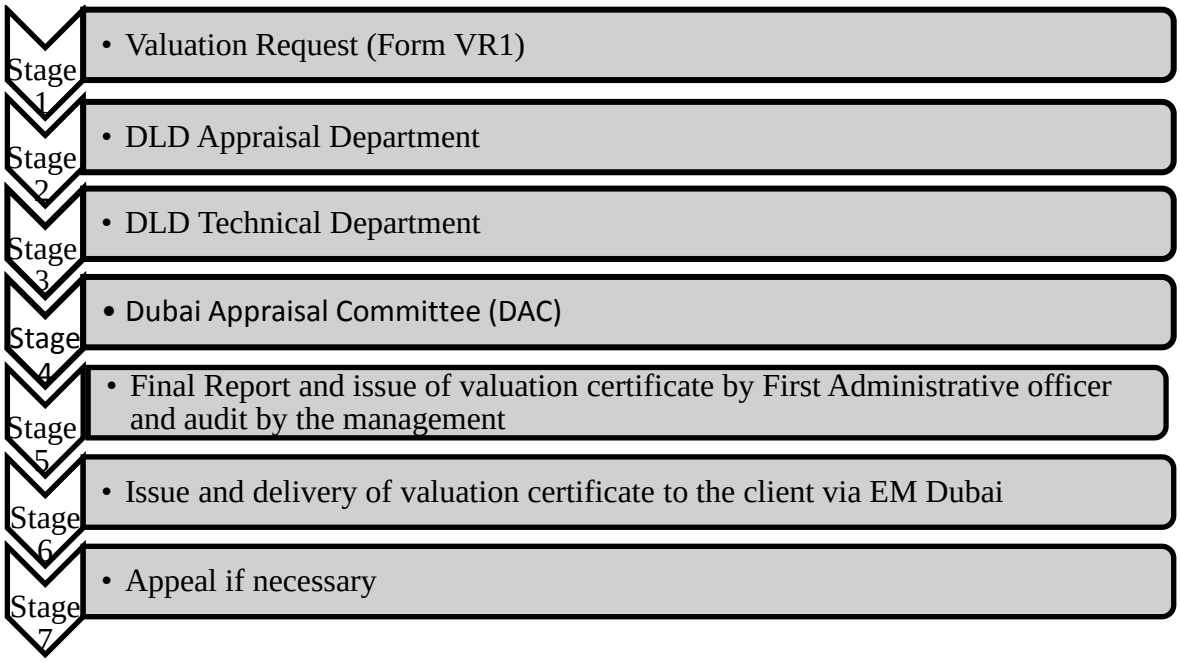


FIGURE 6.2: OVERVIEW OF THE DLD (APPRAISAL) CURRENT PRACTICES AND PROCEDURES INCLUDING DCAP FOR DIFFERENT VALUATION PURPOSES (SOURCE: DLD AND STAKEHOLDER DISCUSSION 2015-16)

If they have multiple properties, applicants must complete additional VR1 forms. Applicants submit the completed forms to the Appraisal Department with supporting documentation. The Appraisal Department sends the application to the Dubai Technical Department (Surveyor) to obtain up-to date information (photos, maps, legal documents site reports for completed units) and GIS Section (for external and internal photos). The survey and GIS sections in Dubai Land Department upload the information and disseminate it to the Appraisal Department, supported by all the relevant documentation and site visits reports. Exceptionally, in case of a vacant land, after filling the request for valuation with the supporting documents, the Appraisal Department Committee reviews the paperwork without any site visits (Abdulmunaim 2015).

After creating a folder for each valuation request, the Committee considers the request for valuation twice a week. The DAC usually consists of eight members (two from Dubai Municipality, three independent developers and three members from Dubai Land Department). Prior to the meeting of all the panel members, DLD's Appraisal Department first Administrative Officer collects all the relevant documentation for valuation Appraisal Committee (AC) valuations call for a minimum of five panel members of which at least two members are from Dubai Municipality (DM). DLD surveyors check building quality, measured areas and estimated construction costs. Each plot is assigned a unique municipality number. The first Administrative Officer uploads all the relevant documents for digital display and panel sequential review.

DCAP considers valuation applications in the sequence of vacant land, villas or flats, buildings or villa compound and, finally, request for appeals. To identify the fees (see Appendi 6.3) and the basis of valuation, DCAP considers whether title transfer is freehold or leasehold and whether it is a normal sale with existing

title (transfer) or registration (new title). Other issues impacting valuation basis include residential properties (income approach), investments, mortgage, loans, granted transfer, auctions, Zakat, investor visa, company audits, Dubai Municipality, Courts/Hereditary.

Once the panel reaches a valuation agreement about an application, they authorise the issue of the Valuation Certificates ('VC'). The Administrative Officer collates reviewed applications and enters data into the *Al Tabu* system (Land Valuation System) and then issues VCs. Appraisal Department staff directly contact clients, via tax message or via EM Dubai (an internal messaging system) to notify them that VCs are available. At Dubai Land Department, the applicants sign for and collect original VCs which detail Zone, Community, Plot. No, Municipality No., Area, Land Status, Square metre Worth, Total Property Worth and makes note of any additional remarks (see Appendix 6.4 Full Valuation request including supporting documents and certificate) . When reflecting on DLD embedded research, it is important to distinguish valuation procedures from actual practice as illustrated in Figure 6.3 below. The valuation professional body of knowledge indicates that sound practice calls for clear identification of the problem and valuation basis, impartial assessment of competence, the collection of reliable data and independent, knowledgeable judgement. Actual practice in DLD falls short of these ideals.

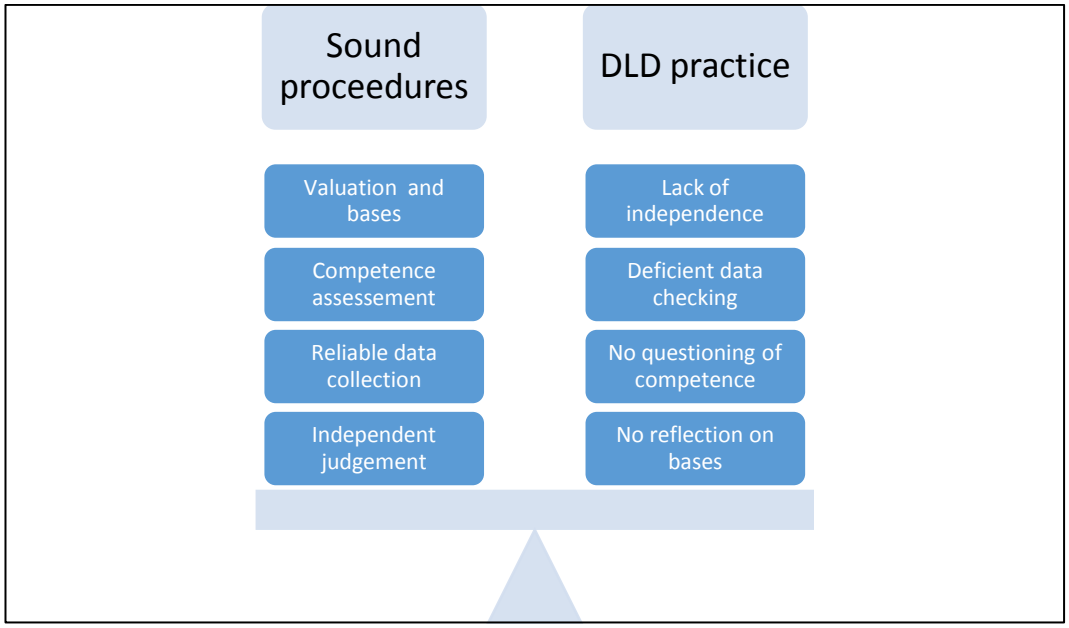


FIGURE 6.3: SUMMARY OF EMBEDDED DISTINCTION BETWEEN SOUND VALUATION PROCEDURES AND ACTUAL DLD PRACTICES.

Other concerns identified during the embedded research with implications for residential valuation system maturity were: independence, professionalism, technology and collaboration. Archival research and observation were effectively conducted at the same time because it was considered important to integrate the documents within the observed procedures and the IT systems, in order to understand how the whole system interacts to generate valuations. Discussions enriched the research with extra detailed information. The DLD archival reviews discovered no evidence of independent valuation audits. From the point of view of both information systems [RVS Principle 2: Intelligence] and [RVS Principle 3: Capabilities (Governance)], the separation of powers and institutional checks and balances is extremely critical to prevent conflicts of interest and to maintain confidence in the system's impartiality and reliability. Embedded observation of DAC discovered that there are sometimes disputes over valuation, which highlights the importance of independent valuation. The conclusion is that governance seems reasonable at the institutional level but could be strengthened by increasing valuer independence.

In terms of professionalism, the embedded observation discovered that most valuers have formal business management qualifications or engineering certificates and some relevant experience in the industry. For built-up areas, normally professionally certified valuers conduct site visits but for vacant land, no visits are required by surveyors or GIS staff. However, the presence of brokers without any formal training raises some concerns. To ensure a mature RVS, Dubai needs to systematically develop formal professional real estate valuation qualifications.

In terms of institutional technological capability, overall a variety of technologies support valuations, including dedicated property databases and GIS as part of normal valuation procedures. The Appraisal Committee (panel) can access robust decision GIS reports (internal and external images). The embedded observation conclusion is that the existing technology is of a reasonable standard.

Although the embedded research was based in DLD, wider discussions were held with other players in the system such as Dubai Municipality; government related entities (NK, DP, Emaar); bank and private sector end users; and international firms. The discussion revealed that the valuation system seems quite fragmented with stakeholders having different priorities, data systems and standards. There are important differences in levels of professionalism, in-house information systems or technical capabilities between different institutions. Effectively, the market is segmented between large, multi-functional real estate consultants (JLL, CBRE, Savills Cushman & Wakefield etc.) who have relatively advanced technologies and local firms or smaller developers who mainly handle smaller projects. Unlike multinational firms who can access rich transaction databases to inform their valuation or sales price judgements, the range of comparables available to smaller firms is somewhat restricted. Government entities like DLD and DM need to cooperate and to adopt new practices and technologies where appropriate.

6.3: Interviews: overview, conduct and analysis

The goal of the semi-structured interviews was to validate the explanatory framework but also to gain insight and explore the issues surrounding valuation in Dubai via open-ended questions like 6 and 7 (See Instrument Appendix 6.5). David and Sutton (2004) asserts that interviews should involve people with experience (Gatekeepers) but also Informants whose advice can provide deeper access to information about the Emirati RVS institutions. Gatekeepers and Informants were selected during the extended embedded research at various sections in the Dubai Land Department, including its Technical Department, Engineering Department, GIS Department, as well as by consulting with other stakeholders such as Assessment Section and the RERA (Real Estate Regulatory Agency) Legal Department. Other stakeholders were from Government Related Entities - developers including Nakheel, Emaar, and Dubai Properties (see Chapter 5) as well as some international valuers and real estate companies from among well-known names, including Jones Lang LaSalle, CBRE, Saville's and Knight Frank etc. The research also recruited respondents from the financial sector, including national and international banks (among them Abu Dhabi Commercial Bank and HSBC). The final group of stakeholders included end-users and international investors. One weakness of the research is that it did not include rental agencies like Better Homes or construction firms like Bechtel, Taylor Wimpey, Lang O'Rouke, and Multiplex. Another was that firms lower down the urban hierarchy were underrepresented (Berry et al. 1992). Pragmatic realities and the focus on DLD - the regulated valuer in Dubai - were judged more important than issues of representativeness and bias (Katz 1983).

The first part of the Operational Phase (see Embedded research above), found reasonably qualified staff and technological support but with some concerns about the separation of powers (governance) during the DLD valuation process. To further test potential system weaknesses, interviews were conducted with 29 Emirati RVS experts and stakeholders during 2016. Appendix 6.7 (Instrument) shows the semi-structured interview instrument. Its preparation involved consideration of the RVS Explanatory Framework (Ch4) as well as cultural

protocol, practical and design matters. Given the explanatory sequential methodology outlined in Ch4, the framework structures RVS operational investigations, the intention was to look not at system outputs or results (see Ch5) but rather at institutional configuration and administrative mechanisms. The following Principles 2-5 (Ch3) were key areas for investigation because they provide a structured approach based on concepts and indicators to guide system evaluation:

- Principle (2): **Intelligence systems** (IS) refers to the whole process of gathering appropriate information to make reasonable valuations and for other purposes. To assess overall intelligence system adequacy, the research considered various indicators. One was the governance of data, aiming to determine whether DLD controlled access to, systematically organised, filtered and checked its real estate data. Another indicator of IS maturity assessed by the research was whether data was transparently sourced with a clear indication of who provided the data. The research also looked at the amount of useful information collected about properties and provided to valuers. To provide valuers with a rich information field, the research assessed whether this information is systematically updated. Finally, advanced IS generate and give valuers access to analytical statistical reports on median prices or forecast price trends and they also model macroeconomic and local price drivers.
- Principle (3): **Institutional capabilities** (C) involves a whole range of factors relating both to institutional configuration and competencies. The first C indicator considered was overall governance (as opposed to data governance) which looks at the whole configuration of the institutions to make sure it is properly controlled and managed. To evaluate competencies, the researcher asked respondents about their experience and qualifications (RICS certification or other professional degrees). Another critical indicator of C was administrative competence which was measured by asking questions to HR or staff for clarification on valuation rules, transaction processes and the checks conducted. Another aspect of capabilities in the modern world is the use or awareness of supportive

technologies. Finally, the research looked at meta-cognition or awareness of the issues relating to complex projects and rapid growth.

- Principle (4): **Trust** ('T') relates to the overall view of players in the market on whether valuations are reliable or unreliable. One of the indicators of trust is whether or not institutions and key market players collaborate in order to receive up-to-date information about projects and the market situation. The second indictor of trust was whether users trusted DLD or other valuations and how they rated the whole current system.
- Principle (5): Standards **salience** ('S') refers to the degree of prominence of global valuation standards in the market and among valuers. Indicators of salience refer to how valuation standards were disseminated, discussed and implemented in respondents' organisations.

After ethical review (Appendix 1.2: Ethical Approval), the thesis fine-tuned the instrument subsequent to pilot interviews conducted in the UK with three experienced valuers. Researchers conducted the main interviews during the period April 2016-June 2016 in Dubai and other Emirates. To ensure interviews were properly conducted (protocols, no bias, leading questions), a few interviews were piloted in the presence of one of the supervisors in April 2016. Appendix 6.1 provides a sample instrument. Respondents included a broad range of valuation system players from among international firms (like Savills, Cushman and Wakefield etc.), government sector (DLD, RERA, DM), Government Related Entities (UAE banks, developers like Nakheel, EMAAR and Dubai Properties), private sector (local developers, end users and investors). For security, the author kept original hardcopy questionnaires in a secure location and destroyed them after analysis. For privacy, all responses were anonymised in interviews discussion and analysis although some names were mentioned above for illustration as examples these were not necessarily interviewed.

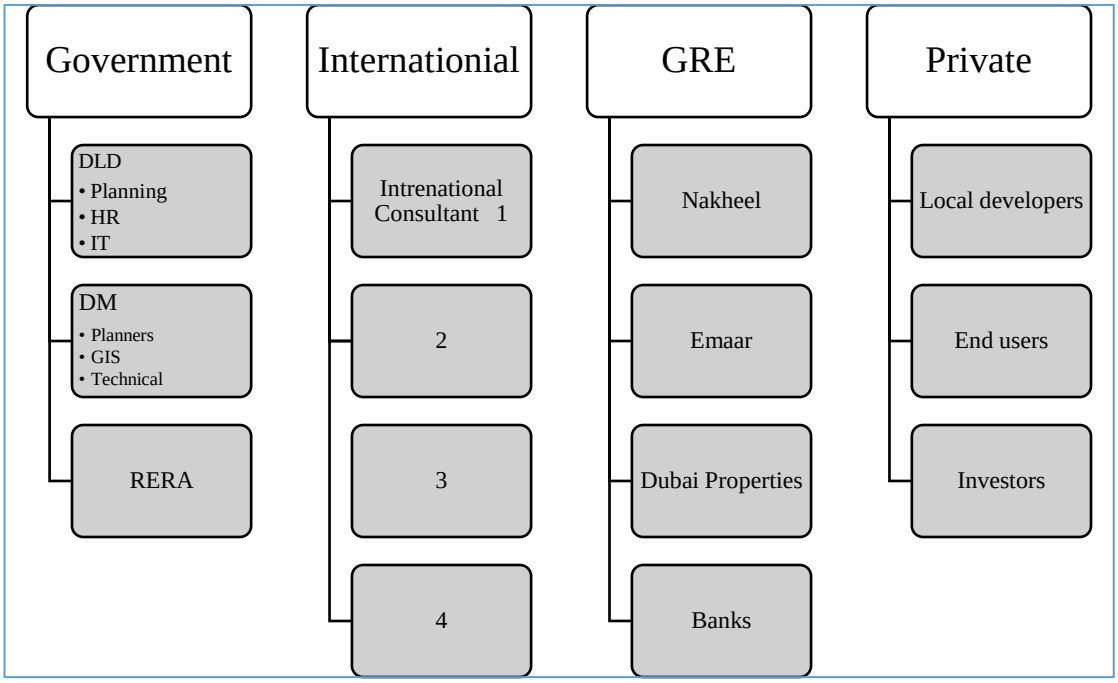


FIGURE 6. 4: RVS STAKEHOLDERS FOR INTERVIEWS

The research designed the interview questions around the operational draft framework illustrated in Fig 6.4 below, which links the valuation system principles with interview instrument questions [indicators] (see Appendix 6.7 for a copy of the full instrument). It is important to note that some questions are open-ended whilst others are semi-structured (partially inductive) and allow for discussion over a range of indicators. Some questions link several principles, which restricts statistical interpretation. For example, Q8 is concerned with the use of valuation standards, and it tests a number of aspects of IS, including sources, administrative competence, standards dissemination and implementation. To illustrate its multiple dimensions, the research labelled it as Q8 [IS-source & C-admin & S-dissem+S-imp]. Similarly, Q4 (on the valuation methods practiced) looks for insights on administrative capabilities, professionalism and standards implementation [C-prof+admin & S-imp]. Note that some questions such as Q6, Q7and Q18 were either open (inductive) or not linked to any particular concept, so that no tables of results for these questions were presented, although insights helped inform overall judgements about particular scenarios.

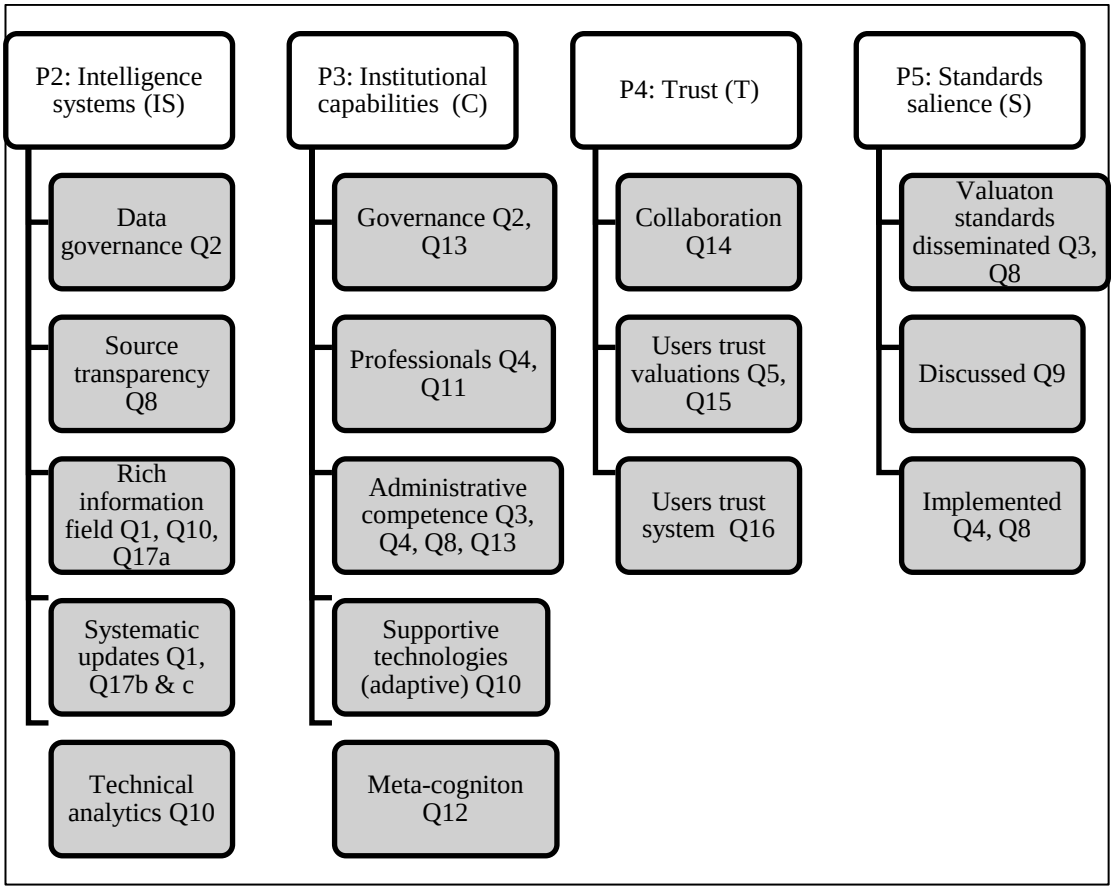


FIGURE 65 LINK BETWEEN INSTRUMENT QUESTIONS [INDICATORS] AND RVS EXPLANATORY FRAMEWORK (SOURCE: AUTHOR CH4)

The research reflected the views of Case (1990) that semi-structured interviews are designed to gather particular qualitative and quantitative information from a sample of the population and to investigate unknown facts and issues that could emerge during the interview process. Although the research assessed a variety of viewpoints, it only employed one version as it probed one unit of analysis – the RVS. The link between the instrument questions and the draft explanatory framework is illustrated above in Figure 6.5 which articulates how concepts are tested by various indicators. These interviews investigated how the RVS is understood by various stakeholders who are involved with valuation in Dubai and also how their views relate to our explanatory framework to evaluate which of the scenarios most reflects reality. Thirdly, the interviews were concerned to assess the degree of confidence players felt in valuations and discover if there were any

particular complications or concerns. Fourthly, the research appraised the government valuation mechanisms, looking for strengths and weaknesses. Furthermore, the interviews assessed the capacity of stakeholders to engage in robust valuations and their effectiveness, given the complicated projects underway in Dubai.

As part of the empirical research, around 27 completed interviews were conducted in Dubai during 2016. There were three critical aspects in the conduct of the semi-structured interviews. The first was to ensure that the questions for the respondents addressed the draft framework indicators, so that an assessment of the RVS scenarios could be made. The second concern was to ensure that the interviewees selected were representative of the population of active RVS practitioners. Finally, the research ensured that confidentiality was maintained via security measures, the destruction of hardcopies and all participants were anonymised. Initial preliminary interviews were held with three UK academics to make sure that the questionnaire was understandable, comprehensive and professional. The respondents came from three main groups: international firms, government agencies and the private sector. However, because international firms are likely to be implementing international valuation standards with common practices, these were not the main focus of the research. Instead the study focus was on the legally binding valuation requirements and the agents who have the authorisation to conduct statutory valuations. This meant that DLD employees were the main group of respondents and their responses were not weighted to reflect the wider population. The interviews explored different aspects of the Dubai residential valuation system which covers output, intelligence, capabilities, trust and standards. Interviews were not recorded because, firstly, they were mainly semi-structured and, second, because of confidentially concerns since valuation is a sensitive commercial and registration issue. More detail on the aspects of each RVS scenarios are now provided.

The closed-ended Likert-scale responses were analysed using a Microsoft Excel spreadsheet to compute weighted scores for each indicator to determine its average (See Appendix 6.4 for the full completed spreadsheet). For pragmatic reasons, to minimise the risk that respondents manipulate their answers, the questions were randomised in terms of order, from lowest to highest or visa-versa. For analysis, some questions had to be reordered and restructured for a consistent ascending approach to each issue. Some open-ended questions were used to assess several indicators and fed into judgements about principles (scenarios). Word counts were also used to analyses these open-ended questions but the overall judgement on scenarios also involved consideration of the earlier embedded research. We now turn to each principle and scenario indicator.

6.4 Principle (2): Intelligence

The second RVS Principle [Intelligence] or 'P2' requires an adequate and reliable Information System (IS). A robust RVS should systematically collect, register, categorize and summarise diverse property data sources for legal clarity, dispute resolution and for valuations, subject to issues of intellectual property (Oxley 1999). The information system should enable agents to identify any valuation premium for sustainable buildings or discounts for unsustainable ones (Loren and Lützkendorf 2008). Access to quality information supports a robust RVS and it involves proper governance around data input, a rich and regularly updated information field. The IS should also disseminate property or capital market information so that players can make informed judgements about cycles (Wheaton 1999), currency risk and other factors (Worzala 1994). Indicators of intelligence capability include, for example, the availability of decision support systems (DSS) with spatial technologies (GIS mapping). The IS includes title details, tenure, boundaries, encumbrances, and utilities charges. In a modern RVS, real estate agents, brokers, bankers, planners, other officials can access the IS for desktop research for various purposes, including registration, due diligence, mass appraisals or locale quality criteria for planning. As well as descriptive statistics,

advanced technical analytics employ regressions and forecasts to inform users about markets dynamics and cycle stages.

The results of each of the indicators of IS maturity are now presented. Each Likert-scale question was analysed via Excel to aggregate the scores of all respondents to calculate the mean score. As discussed earlier, no weighting was used. Full analysis is given in Appendix 6.8. We now analyse each question in turn.

The RVS Explanatory Framework breaks the IS notion down into its multiple constituents (indicators), reflected in instrument questions as follows. In the second scenario, Q2 covers data governance and Q8 investigates source transparency. The extent of the information field was examined by Q1, Q10, and Q17a. Whether the IS has systematic updates was investigated through two questions, although one had two parts (Q1, Q17b&c). Finally, Q10 covers the use of technical analytics.

First, looking at data governance, Q2 asked respondents, *What do you understand by the term Residential Valuation System in Dubai (RVS)?* Governance is about structuring institutions to avoid the Agency Problem (Ch3) or officials diverting resources to further their own private ends rather than performing their public duties (Shleifer and Vishny 1997). To this end, it is important that RVS officials/players have a conceptual overview of the interactions of all RVS elements and its ultimate function (i.e. reliable records and valuations). However, the interviews revealed a wide diversity of views and, in some cases, confusion. For Q2, Respondent 3, gives a flavour of some of the confusion:

[R3] - *Don't have familiarity. Maybe something to do with RERA. I read recently document about implementation of a valuation system*

However, for Q2 other respondents provided clearer definitions of the valuation system:

[R15] – *Part of the whole valuation in general that constitutes the property residential price*

[R16] – *Residential system in Dubai is the criteria and standards to value residential units. We have an appraisal committee who values properties and also looks at property prices and market situation. On the other hand, we have external international companies who perform valuations according to international standards.*

The overall results of this indicator is given in Appendix 6.8. When all the respondents' answers were aggregated, the average score was 2/5 or 'weak'. These interview results were supplemented by earlier embedded research which also found data government weak.

The next aspect of information systems maturity analysed by the interviews involved the extent to which data sources were transparent. In Q8, respondents were asked, *In your work, how relevant are valuation standards?* The majority of international investors require transparent sources of information that complies with international standards (RICS; IVSC; FRS), indicated by, for example the Jones Lang LaSalle RE Transparency Index (2016). In the Emirates, reasonable market transparency by regional standards is still considered deficient by some international firms who prepare their own databases although, because methodologies can vary, so can interpretations, leading to market distortions and mispricing. Typical is where an in-house database valuation fails to clarify the basis of value. Whilst market value (MV) is usually most appropriate, in specific circumstances, clients can request and appraisers adopt alternative bases (RICS, VPS 4, *Bases of value*). For Q8, Respondent 4 highlighted the importance of valuation standards in sourcing data:

[R4] *Critical. It is very important to keep up the standards of valuation due to the huge volume of mortgage transactions and to avoid any risks associated with them.*

However, 9 out of 27 complete responses (one third) considered standards either 'irrelevant' or 'largely irrelevant'. The issue of sources of information also appeared in Q6 [OPEN] about *most critical factors influencing the system reliability*:

[R28] – *Clients do not include all the information required for valuation or wrong information is provided.*

[R29] – *We don't have available information for new land and new projects which hugely impacts the valuation price.*

Overall, it is fair to say that the UAE RVS has some data transparency issues. Q8, transparency assessment score was weak (Appendix 6.8). This interview finding concurs with earlier embedded research which also found issues with data sourcing - although this was not formally incorporated.

The richness of the information field available to valuers is an important element in the overall maturity of the RVS. Q1 asked respondents: *Could you please tell me something about the current state of the Dubai residential market.* Sophisticated real estate markets such as in the United States of America are 'awash with data providers' such as 'CoStar, Real Capital Analytics, CoreLogic as well as Multiple Listing Services' and a 'propagation of real estate indices (NCREIF, Moody's, or Case Schiller House Price Index, FTSE NAREIT) (RICS 2014:54-55). Mechanistic data-driven research may not in itself solve the Emirati valuation issue, but a rich property information field is nevertheless necessary to inform sound judgements (metacognition). To this end, Q1, investigates how well-informed were RVS players about market conditions. One issue with IS information field assessment is the unit of analysis, because earlier literature reviews did not give a clear answer on this subject. This lack of clarity on RVS definition was confirmed during the interview process, since the valuation profession in Dubai is fragmented with some major global real estate players, government departments and GRE as well as local developers. International firms like Jones Lang, Cushman Wakefield, Savills, CBRE etc. have dual appraisal and

brokerage functions and can benefit from multiple external and internal databases to inform their valuation or sales price judgements. The dual function of these firms in both valuing and selling raises some issues of confidentiality and conflicts of interest. Even agents operating in well-resourced global or GRE firms with decades of market experience expressed (either in response to Q1 or Q6 [OPEN]) frustrations about data quality (poverty of information field).

[R3] - *DLD data issues (data logged variability and even logged same property twice), inadequate insignificant property characteristics details. I use comparisons with which we are familiar or rely on brokers who are active in the market.*

[R1] - *Lack of access to reliable data (transparency) for comparables. DLD data goes to REDIN. Also issue of relationship based selective data release such as to Cavendish Maxwell.*

[R2] - *Transparent sales and rental records as well as transparency and standardisation with detailed breakdown of service charges.*

Clearly, the UAE RVS has data issues, particularly regarding the reliability or and selective access to databases held by Cavendish Maxwell or REDIN. Overall the conclusion is that the IS system information field is weak (see Appendix 6.4).

Technology Q10

Q10 evaluates whether respondents made use of advanced technologies or mass appraisal techniques. Respondents were asked: *In your work, to what extent is technology such as Geographic Information Systems or AVMs statistical mass appraisal software important for valuation?* Almost half of the respondents (14) stated that they considered this advanced technology 'critical', whilst 4 respondents considered it 'very important', and 11 respondents indicated that it was 'largely irrelevant', due to the nature of their work. Therefore, the Q10 conclusion is a mixed. Some players considered it critical but others irrelevant.

Overall, the great majority see it as either critical, very important or quite important.

Criteria	Largely Irrelevant	Unimportant	Quite important	Very Important	Critical
Respondents	11	0	2	2	14

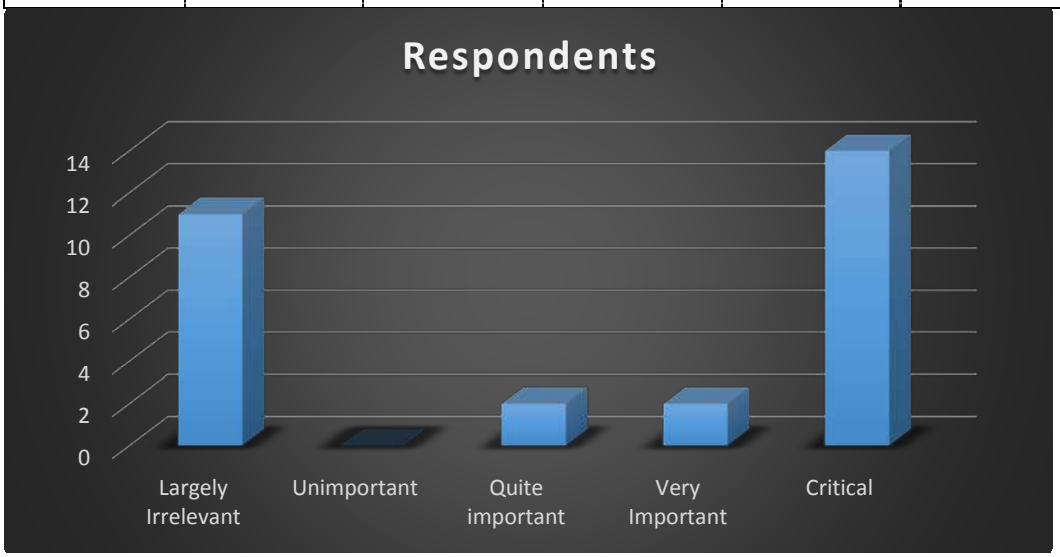


FIGURE 6.6:Q10 THE IMPORTANCE OF ADVANCED TECHNOLOGIES OR MASS APPRAISAL TECHNIQUES

When the results are standardised using the Linked Analysis in Appendix 6.8, the thesis generates a representative weighted average score of 3.3. However, it is clear from Figure 6.6 above that the views of respondents are split and that the representative mean score is somewhat misleading.

One of the issues with Decision Support Systems is collecting sufficient information to determine quality, especially in a rapidly growing metropolis like Dubai. Q17a asked whether respondents thought that *the valuation system could handle differences in place & building quality.* Concerning entity specific IS,

most respondents considered data handling to be reasonable with only one respondent complaining:

[R3] *Generally, BQ is not good (lifespan 40 years). Only with master planned projects like the Greens is much attention paid to urban design.*

However, system-wide data issues are another matter. The interviews extracted 21 separate mentions of data quality issues. Clearly, a major concern for a wide range of UAE valuation system experts is data quality. A few examples of these sorts of data field deficiencies should help to illustrate the point which was raised in OPEN questions such as Q6 (concerns) and Q7 (critical issues).

[R1] - *Lack of access to reliable data (transparency) for comparables. RERA data from DLD goes to REDIN. Also, issue of relationship based selective data release such as to Cavendish Maxwell.*

[R2] - *Transparent sales and rental records as well as transparency and standardisation with detailed breakdown of service charges.*

[R3] - *Transparency and lack of reliable data. Deficiency in DLD data. Brokers not always reliable but Cavendish Maxwell produce a Property Monitor database.*

[R5] – *Access to the information for the relevant and delegated professionals. However, the government nowadays trying to ease access to knowledge and information, but this matter has a conflict of the tradition keeping confidentiality and privacy for landlords.*

[R25] – *The accuracy and availability of information at the start and the end of the whole project, which covers all the relevant data such as area size, building quality, rental income and location.*

[R26] – *The lack of information, relative to particular buildings such as rental income and building age and other required data and information.*

The conclusion for Q17a + [OPEN] is that the IS quality data is weak. This conclusion from the interview was supported by embedded observation and grounded analysis memos of incidents involving where data was either restricted or inadequate to make a proper valuation judgement. Memos also note a concern

among many stakeholders that information was not fairly disseminated, with some players seen as enjoying privileged access to data.

Any information system needs to be constantly updated. This is particularly true in a fast-changing metropolis such as Dubai, with many development projects. Looking at answers to Q1 from the point of view of information updates, a few responses suggest some concerns with this aspect of the system.

[R1] - Lack of access to reliable data (transparency) for comparables. RERA data from DLD goes to REDIN. Some RERA data is out of data since transactions are dated (2 years post transaction). Also issue of relationship based selective data release such as to Cavendish Maxwell.

[R6] –*We don't have measurement to evaluate and monitor supply and demand in the market nowadays.*

[R14] – *There is a mutual trust in daily transactions nowadays. We do protect all the parties (sellers, buyers, broker) when we are dealing with the title deed transfer*.

However, during the interviews, respondents raised the issue of information 51 times, sometimes in other questions. Thus, for example, R1 again for Q6 (Critical issues) is relevant here.

Therefore, overall, given the range of concerns and the fragmented access, the Q1 assessment for information updates is 'weak' which was also confirmed during the embedded observations and discussions.

In any evolving metropolis such as Dubai, value is destroyed and created all the time through different demolitions, depreciation, deterioration, blight, projects or infrastructure or beautification. Q17b asked respondents to evaluate: *In your view how well does the valuation system handle b) fast pace of change in locales?* For the second IS updater element**,** *the fast pace of change in locales***,** 17 respondents considered it reasonably developing, very well and quite well – 12 respondents, which suggests that majority were quite satisfied with the pace of change in locales.

Criteria	Very well	Quite well	Reasonably	Badly	Very badly
Respondents	7	5	17	0	0

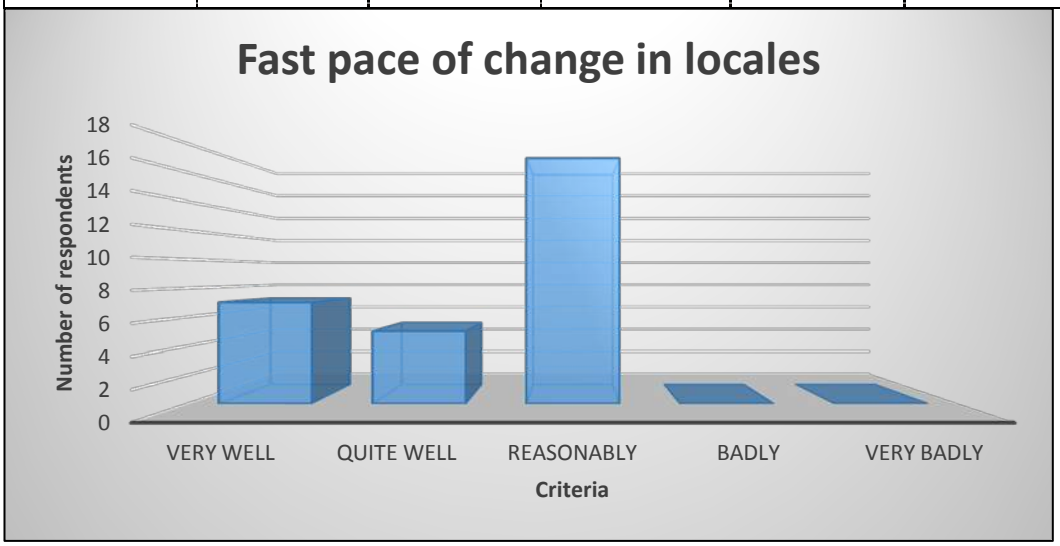


FIGURE 6.7: Q17B VALUATION SYSTEM HANDLE B) FAST PACE OF CHANGE IN LOCALES

Real estate value is affected not only by location and structure but also by macroeconomics and international markets. The exploratory macro analysis found that Dubai was exposed to international sentiment due to regional instability and oil price fluctuations. Questions 17c asked the respondents *how well the valuation system handles fluctuating sentiment in Dubai.* For the third IS update element - *fluctuating sentiment in Dubai***,** 25 respondents considered IS monitoring of fluctuating capital markets as 'reasonable' while 4 respondents considered it 'quite well' or 'very well'. Therefore, overall, respondents were satisfied with the data provided by the IS on capital market sentiment (cycles).

Criteria	Very well	Quite well	Reasonably	Badly	Very badly
Respondents	2	2	25	0	0

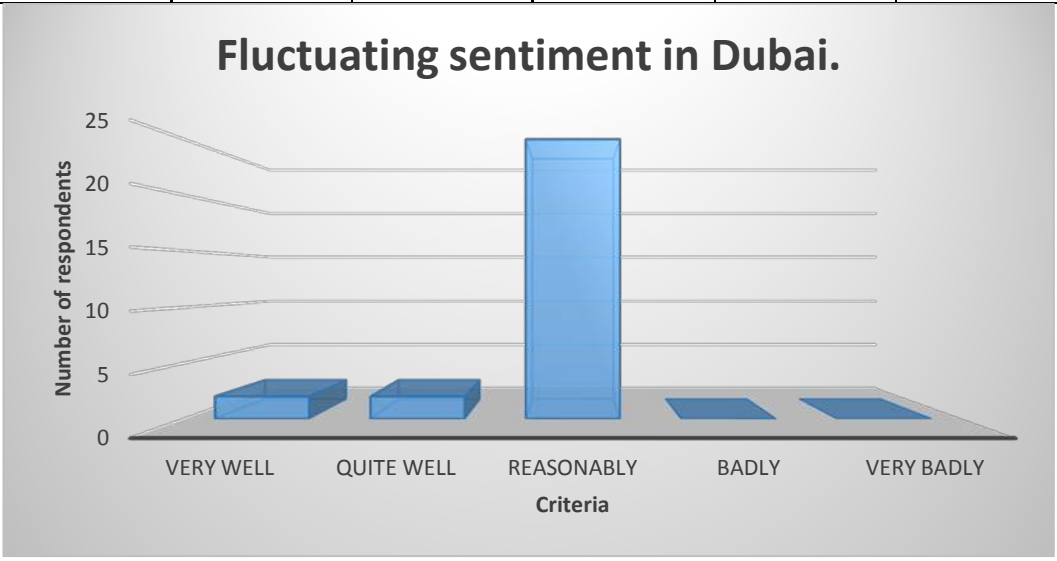


FIGURE 6.8: Q17C FLUCTUATING SENTIMENT IN DUBAI

Fig. 6.8 suggests players feel the IS system handles fluctuations in market sentiment reasonably well. Appendix 6.2 gives an aggregate score of 3.21 which is reasonable.

In modern times, mass appraisal techniques like hedonic regressions have become increasingly important. Aspects of this issue were covered in Question 10 on rich information field. When the results are standardised using the Linked Analysis in Appendix 6.2, the thesis generates a representative weighted average score of 3.3 which is reasonable. Obviously, the descriptive statistic can hide important variations in the systems of different players. This was confirmed in the embedded observations where some international firms and Dubai Land Department used hedonic regressions as part of their valuation process but small developers did not have access to reliable data and had neither awareness nor expertise in this area.

Table 6.1 below summarises the results of the embedded research and interviews concerning the second major aspect for a mature RVS – robust information systems.

TABLE 6.1: SUMMARY OF INFORMATION SYSTEMS ANALYSIS (SOURCE: AUTHOR EXTRACT APPENDIX 6.4)

Data governance (Embedded Research)	1					1.00
Data governance Q2		2				2.00
Data governance AVERAGE						**1.50**
Source transparency Q8		2				**2**
Rich information field Q1		2				2.00
Rich information field Q10	11	0	2	2	14	3.28
Rich information field Q17a		2				2.00
Rich information field AVERAGE						**2.43**
Systematic updates Q1		2				2.00
Systematic updates Q17b	0	0	17	5	7	3.66
Systematic updates Q17c	0	0	25	2	2	3.21
Systematic updates AVERAGE						**2.95**
Technical analytics (Embedded Research)		2				2.00
Technical analytics Q10	11	0	2	2	14	3.28
Technical analytics AVERAGE						**2.64**
Intelligence systems (IS) AVERAGE						**2.30**

A mature RVS depends critically on having robust information systems which can be accessed by all market players. The overall results of the interviews in judging the maturity of the information systems in Dubai, based on the views of 27 stakeholders and incorporating multiple indicators, suggest it is weak with an aggregate mean score out of five of 2.30. The interview results were confirmed by the embedded observation so that, based on these results, the IS of the UAE RVS

needs improvement. For this aspect of the UAE RVS then, on balance, Scenario2.2 is true so that the information systems need improvement.

6.5 Principle (3) Capabilities and indicators

Capabilities include both those of the system and of the human agents to undertake valuations and provide other supporting services. Principle 3: [Capabilities] RVS institutions are properly configured and governed, with professional staff and sound administration, supported by appropriate adaptive technologies, and the skills and experience to cope with complex valuations.

The results of each of the indicators of system capability were analysed. Overall judgement for capability indicators took into account several questions, including open-end ones but also considering the earlier embedded research. Each Likert-scale question was analysed via Excel to aggregate the scores of all respondents to calculate the mean score. As discussed earlier, no weighting was used. Full analysis is given in Appendix 6.8. We now analyse each question in turn.

To judge which scenario reflects the current situation for the RVS, the interviews considered a number of indicators to capture the notion of system capabilities. The first was governance which was examined in Q2, Q13. The human capital or professional education and training of RVS players was considered in questions 4 and 11 while administrative competence was examined through a range of questions (Q3, Q4, Q8, Q13). Institutions undertaking valuations need supportive technologies which can cope and address various user needs but can also be adapted so that technology is up to date (Q10). Finally, the interview probed for indicators of meta-cognition or the ability to think beyond the paperwork to judge significance of the case (Q12).

The interviews examined information governance earlier but here the focus was on overall institutional governance in terms of strategy and management. Two questions covered this notion. Q2 asked respondents to evaluate *What do you understand by the term Residential Valuation System in Dubai (RVS)?* This question summarised and gave the full answer about whether respondents were aware of the RVS unit of analysis. The assumption was that if managers were unable to articulate the overall function of their institute in the system, then management would be poor. This was supported by Q13 which asked them to explain *how your department monitors and checks valuation accuracy?* Q13 deals with both governance capabilities and administrative competence. For organisational governance to avoid the Agency Problem, the basic principle is separation of duties. In practice, this means that independent staff should oversee a valuation to monitor the process and check its accuracy (reasonableness). Worryingly, Q13 results indicate that 6 respondents considered monitoring and checking 'non-applicable'. However, further questioning made clear that this was due to the nature of their work. 2 respondents mentioned quality and assurance department; 3 respondents – independent and internal reviews; 2 respondents – technical and information support; 12 respondents mentioned the importance of appraisal committees and departments; 1 respondent stated the importance of senior staff; 4 respondents referred to financial auditing office; 12 respondents to the Dubai Appraisal Department and committee; 2 respondents mentioned technical software. Responses were presented in a random way to respondents to ensure no bias. Subsequently, responses had to be re-ordered to present a stepped sequential judgement based on common accounting and auditing principles, given that external independent review is the best way to verify transactions are accurate. Internal review could be influenced by internal organisational politics or vested interests of management.

Criteria	N/A	Quality & Assurance Dept. or technical support	Independent and internal reviews	Dubai Land Dept./Appraisal Committees, senior staff	Financial audit office, technical software
Respondents	6	5	3	12	6
Scaled re-order	6 N/A	12 DLD senior staff	6 QualityAssuranceDep	5 Financial audit	3 Independent review
Rating	Very poor	Weak	OK	Good	Excellent
Likert	1	2	3	4	5

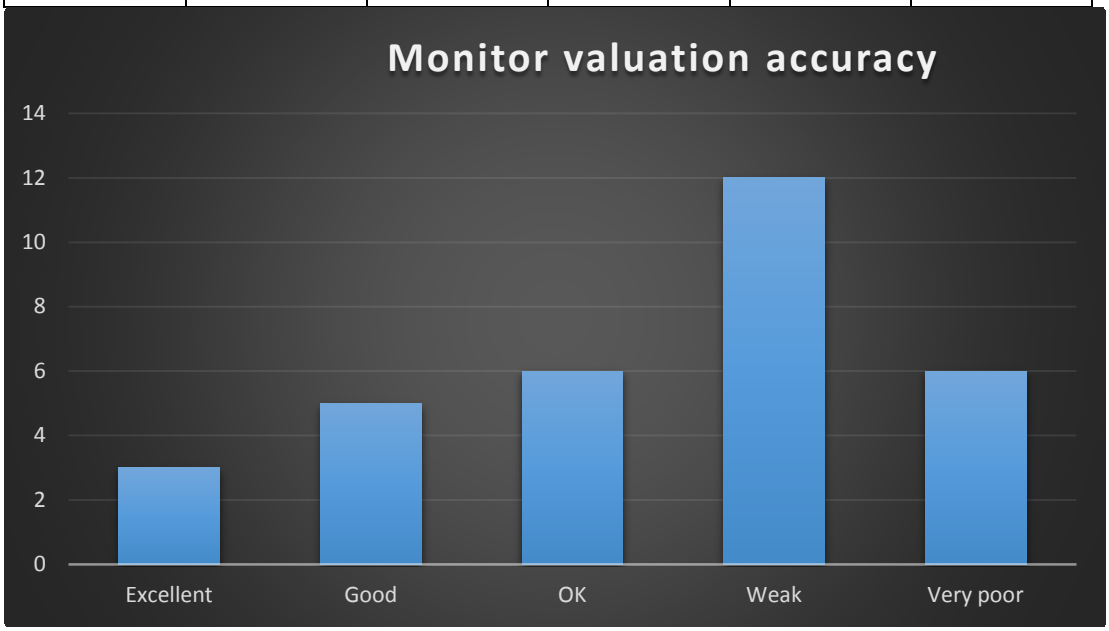


FIGURE 6.9: Q13 DEPARTMENT MONITORS AND CHECKS VALUATION ACCURACY

Translating these results into an ordinal ranking is somewhat tricky but the thesis assumes a graduation from weakest to strongest as indicated by the arrows above. The responses varied, indicating and range of approaches and variable governance competence. However, it is clear from the respondents that most institutions rely on internal checks, which is not a robust monitoring process. Independent audits

would provide much stronger assurance. Some Q2 (open question) provided evidence of stronger controls:

R1] - *Quality management (QM) involves 1) independent review and Quality Assurance (QA) checklist signed off.*

[R 19] – *We check the transactions based on daily average price transactions using specialist software which is designed for appraisal department*

However, the overall assessment for Q13 = 2.59 OR 'weak' to 'OK'.

A mature RVS needs qualified professionals to be aware of the significance of valuation and other land management and development issues and to handle them ethically and competently. An indicator of valuation professionalism is awareness of different valuation methods. In Q4, the interviews sought to find out whether for *different valuation purposes you just mentioned, could you please tell me something about the method(s) of valuation practiced?*

Talking about indicator valuation, respondents mentioned a broad range of methods were used as illustrated in the extract below.

Purpose	**Times mentioned**	**Purpose**	**Times mentioned**
Comparison	13	N/A	12
Depreciated Cost	1	Investment Methods	1
DCF	2	Income	10
DRC	4	Profit	1
Residual	3	Cost	6
		Appraisal Committee	3

Some respondents were obviously very knowledgeable about distinctions in the market characteristics, adopted approaches and selected reasonable comparables

within submarkets to capture the spatial variations in values due to differences in place or construction quality etc.

[R1] *Generally, comparison is the favoured method for residential units. The depreciated cost basis is unreliable due to differences in market perception. For example, Arabian ranches on one side of Emirates road is perceived favourable by the market as Emaar's reputation is strong and people are willing to pay a 25% premium compared to the opposite development by Dubai Properties which suffers from adverse sentiment notwithstanding that in actual fact often the same subcontractors were used, land prices are identical and build quality is similar. Another example involves DAMAC which overstretched itself but overcame these liquidity issues and this challenge had some negative Impact of a while on the market.*

Other respondents outsourced the valuation tasks.

[R29] – *We have a third party to perform valuation and discuss the results with Emaar committee and other property valuers.*

Overall, there were a mixed range of responses, some reflecting a very high degree of professionalism but other responses were less convincing. The conclusion, despite that almost 25% thought the questions were 'not applicable' is a score of 3.93 'good'.

Q11 was the other one relating to professionalism which asked respondents, *what professional qualifications do you consider important for valuations?* Q11 is also linked to the concept of Institutional Capabilities which is associated with qualified staff in UAE RVS valuation. Whilst several respondents mentioned RICS qualifications or international standards, many other system agents simply relied on University qualifications or professional qualifications (property training) and local valuation work experience. Other qualifications mentioned included knowledge of TEGOVA and Emirates Valuation Book (see Appendix 6.5), and technical engineering, the use of new technology, valuation certificate from Dubai Real Estate Institute. Examples include:

[R26] – *Experience in property residential market, training and qualification certificate*

[R 17] – *University qualification certificate and Dubai Real Estate Institute qualification, experience in the field are very important.*

[R 21] – *Experience and practice in this field*

[R 27] – *Experience, up-to-date knowledge, ongoing practice*

[R 13] – *Experience and adoption of the best international practices. The use of new technology and joint venture with other relevant entities such as Municipality to know more about the building quality.*

[R14] – *Market and construction experience. University qualification certificate.*

The open-ended question 11 generated many responses which the research categorised.

Criteria	International Standards (RICS)	Experience, practice, trust, up-to-date knowledge	Qualification	Training, Dubai Real Estate Inst.	Technical and Engineering
#	6	29	20	9	4
Ordinal rank	Very poor Experience	Weak Training DLD	OK Qualification	Good Technical and Engineering	Excellent international standards
Re-ordered	29	9	20	4	6
Likert	1	2	3	4	5

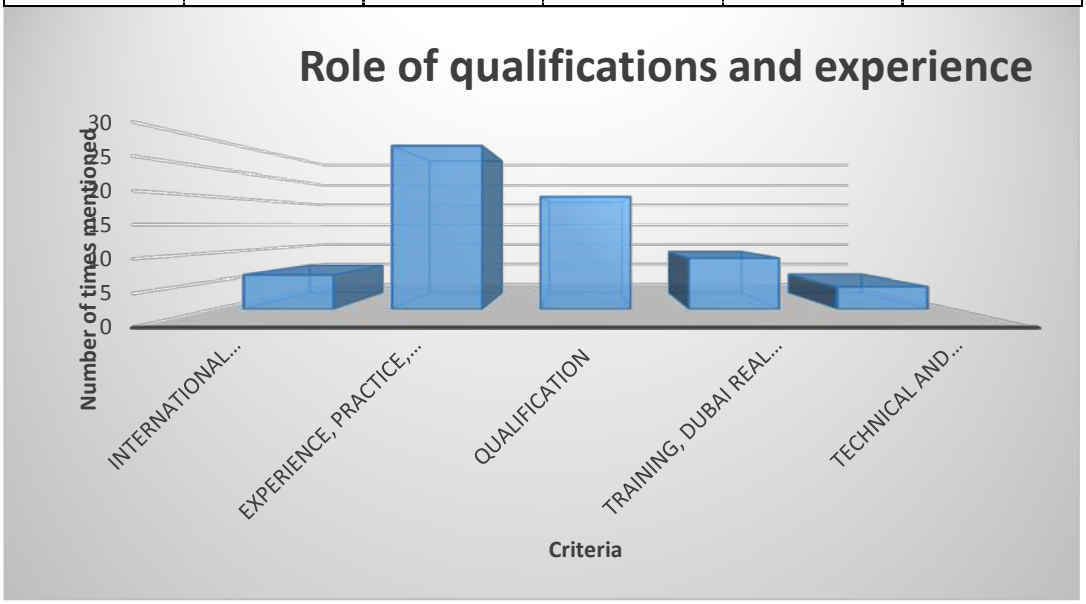


FIGURE 6.10: Q11 ROLE OF QUALIFICATION AND EXPERIENCE

It is clear from 6.9 that most stakeholders were convinced that experience and trust were sufficient for valuation. The nine respondents who trained in the DREI were ranked weak although recently the institute started teaching international valuation standards, but without any explanation as to how these standards could be applied in the UAE context. Arguably, the 'qualification' group could be ranked weaker than DREI but some of these respondents had robust qualifications. Using the re-ordering ordinal Likert scoring approach generates a Q11 score of 2.25 or 'weak'.

Administrative competence covers a whole range of issues which were examined in a number of questions. First, Q3 probed whether, *in your organization, when are valuations required and for what purposes?* Respondents gave several reasons for valuation but three main valuation purposes emerged. Fist was for commercial purposes {registration (6); loans (2), mortgage (2); banks (9); auditing (7); inheritance (10); donation (12), zakat (2)}. Second is for government related purposes {courts (8); compensation (3); municipality (5); project (2)}. Finally, legal purposes {projects (2); disputes (3), settlement (7), statutory valuation (1); selling and purchasing (9) with some others {N/A (4); private (9); auction (2)}. Clearly, agents in the system are aware of the legal and administrative role of valuations. Hence, the assessed score (using judgement or metacognition) for Q3 is between 'OK' and 'good' or 3.5 on an ascending Likert scale. Further details about administrative competence came from answers to Q4 which was another open question which asked: *For each of the valuation purposes you just mentioned, could you please tell me something about the method(s) of valuation practice?* The results indicated that most respondents considered comparison and income cost as the most frequently used methods in valuation practice. This concurs with awareness about international standards. We computed a representative Likert scale score of 3.93 based on judgements about each respondent's answers (1-5) and then weighting by proportion of responses. Obviously in a mature valuation system, agents need to be aware of international standards, so that Q8 asked them whether, *In your work, are valuation standards relevant?* Somewhat alarmingly, most respondents thought them unimportant, and the allocated Likert scale is 2 (see Appendix 6.8). Q13 sought to find out whether valuation approaches, data and computations were checked, or specifically: *Could you please explain how your department monitors and checks valuation accuracy?* The allocated weighted Likert scale score for Q13 was 2.59 (almost OK) which indicates that there are some gaps in oversight, monitoring and control which reflects embedded experience. Overall, the four questions relating to administrative competence generated an average score of 3.1 which suggests OK

or reasonable. However, this representative statistic hides a range of competencies in different organisations.

Technology use affects both information system and also organisation capabilities, so Q10 is also used here to evaluate whether, *In your work, to what extent is technology such as Geographic Information Systems or AVMs statistical mass appraisal software important for valuation?* The allocated Likert scale score is 3.28 which is fine. Arguably, the use of the same indicator to appraise different aspects of the system compromises data independence. However, system theory in general defines components working together, so that each cannot be completely separated (Ch 3).

A robust valuation system needs to be able to handle complex valuation cases because valuation is both an art and a science (see Ch2 and Ch3). Metacognition is an important aspect of any competent professional system, so Q12 asked whether, *Talking about valuations conducted in your work, could you outline how you handle difficult or complex cases? [In terms of seniority, use of AVM, review of cases]* Of some concern was the fact that 11 respondents thought the issue of complex valuation were not applicable at all**.** Five respondents raised cases involving major projects. 2 respondents mentioned external and global review requirements; 2 respondents highlighted the lack of relevant information or overload; 2 respondents underlined the importance of site visits, 23 respondents admitted the uniqueness of each case, 7 respondents mentioned relevant department for valuation process, 3 respondents referred to top management for complex valuation, 2 respondents linked complex cases with infrastructure.

Criteria	N/A	Major projects, infrastructure	External global review	Top mgmt. or, relevant dept.	Case uniqueness & complexity
Respondents	11	7	2	10	23

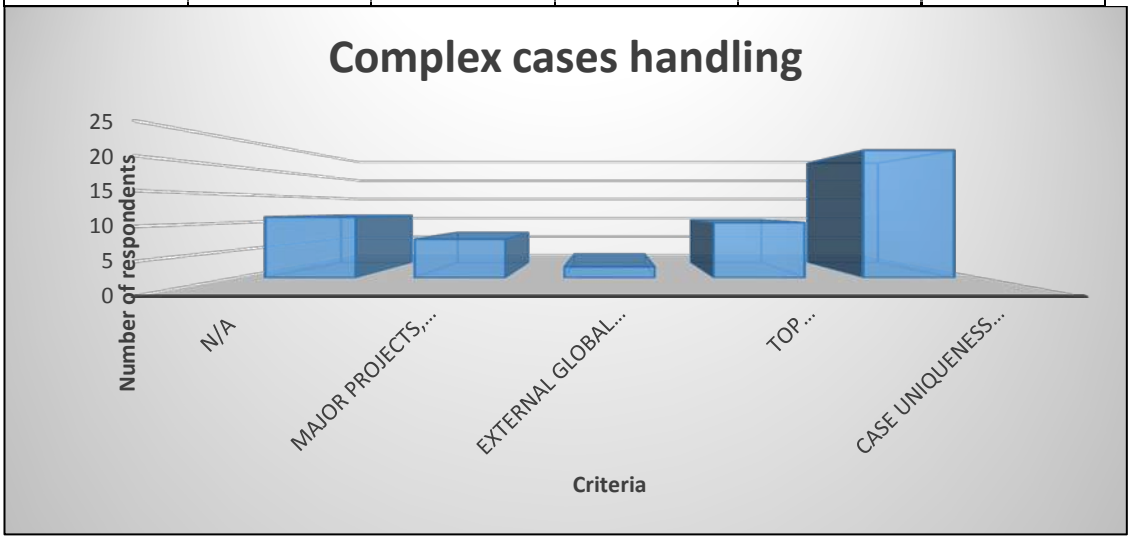


FIGURE 6.11: Q12 COMPLEX CASES HANDLING

Assuming that not applicable (N/A) responses indicate unawareness of the complexity issue, this translates into an approximate Likert Scale score of 4 which is good. This result suggests that respondents handling valuation in their duties are aware of the issue of complex valuations and take the necessary steps to refer the cases up to someone competent.

Table 6.2 below summarises the results of the embedded research and interviews concerning the third major aspect for a mature RVS – institutional capabilities.

TABLE 6.2 SUMMARY OF INSTITUTIONAL CAPABILITIES ANALYSIS (SOURCE: AUTHOR EXTRACT APPENDIX 6.4)

Governance (Embedded Research)	1					1.00
Governance Q2		2				2.00
Governance Q13	6	12	6	5	3	2.59
Governance AVERAGE						**1.86**
Professionals (Embedded Research)		2				2.00
Professionals Q4						3.93
Professionals Q11	29	9	20	4	6	2.25
Professionals AVERAGE						**2.73**
Administrative competence Q3						3.50
Administrative competence Q4						3.93
Administrative competence Q8						2.00
Administrative competence Q13						2.59
Administrative competence AVERAGE						**3.01**
Supportive technologies (Embedded Research)			3			3.00
Supportive technologies (adaptive) Q10						3.28
Supportive technologies (adaptive) AVERAGE						**3.14**
Meta-cogniton Q12						**3.96**
Institutional capabilities © AVERAGE						**2.94**

In conclusion, having systematically investigated the constituents for institutional capability via instrument questions [indicators] (Figure 6. 5), the total score for the UAE RVS on Principle 3 (capabilities) was 2.94 (see Appendix 6.8) which is just about OK or reasonable. One issue that emerges is perhaps the need for more professionally trained Emiratis with internationally recognised qualifications such as MRICS.

6.6 Principle (4) Trust

Trust is the glue that binds the system agents together in a social setting (Granovetter, 1973; Zimmer 1986; Levine 2004). In a mature valuation system, it is important for agents to trust each other and the data. The fourth principle for a robust valuation system was trust and the concept was included in the draft RVS explanatory framework players. To establish the level of system trust (scenario), three indicators and four questions were considered. Trust involves collaboration between different institutions and also investors who are considering transferring funds or buying properties need to trust the system and the market in general. The specific issue of collaboration was examined by Q14 (closed) but other closed

questions (Q5, Q15 and 16) quizzed the more general level of trust in valuations or in the valuation system.

The research examined and analysed results of each of the indicators of system trust. Trust assessment involved several (indicators) based on four closed questions but also considered the earlier embedded research. Each Likert-scale question was analysed via Excel to aggregate the scores of all respondents to find the mean, representative score. As discussed earlier, no weighting was used. Full analysis is given in Appendix 6.2. We now analyse each question in turn.

The level of collaboration between the key system players was examined by Q14 which asked, *How often does your department coordinate/meet regularly with other external institutions?(Such as Dubai Municipality, Taqyeem and other valuers).* The responses are illustrated by the extract below and indicated that monthly meetings were common.

Criteria	Never	Annually	Monthly	Weekly	Daily
Imputed ordinal ascending rank	1	2	3	4	5
# of respondents	4	7	8	4	5

Assuming that responses indicate level of coordination, this translates into an approximate Likert Scale score of 2.96 – basically 'OK' which suggests a reasonable level of collaboration.

Trust in valuations was assessed by Q5 and Q15. In Q5, the research asked whether, *In general, how confident are you in residential valuation accuracy?* The extract below summarises the results.

Criteria	Very worried	Concerned	Fairly confident	Confident	Very confident
#	0	0	1	25	4

Assuming that responses are in ascending strength of confidence, this translates into an approximate Likert Scale score for Q5 of 4.10 which is basically 'Good'. Coming now to the second trust valuation question, Q15 involved respondents, *Thinking about recent meetings with various external real estate players, how confident are they in UAE valuations generally?* The results suggest that confidence in valuations is generally quite high as illustrated it the extract below.

Criteria	Very worried	Concerned	Fairly confident	Confident	Very confident
Respondents	0	1	4	21	3

Assuming that responses represent ascending strength of confidence, this translates into an approximate Likert Scale score for Q15 of 3.90– moving towards 'Good'.

The other aspect of trust was overall confidence of users in the systems as a whole so Q16 asked, *To what extent do market participants trust the UAE RVS?* as illustrated in the extract below

Criteria	Not at all	A little	Somewhat	A lot	Totally
#	0	2	8	17	27

It was of some concern that the research found that many respondents stated that they totally trusted valuations in the system. Given the contentious nature of valuation, fluctuating markets and constant court cases in the area of valuation and also given the dramatic impact of the GFC on values in the UAE, this suggests many players are ill-informed. However, assuming that ordinal responses reflect underlying real confidence, this translates into an approximate Likert Scale score for Q16 of 3.66– moving towards 'Good'. However, as noted the response should be treated cautiously.

Table 6.3 below summarises the results of the embedded research and interviews concerning the second major aspect for a mature RVS – robust information systems.

TABLE 6.3 SUMMARY OF TRUST ANALYSIS (SOURCE: AUTHOR EXTRACT APPENDIX 6.4)

Collaboration Q14	4	7	8	4	5	**2.96**
Users trust valuations Q5	0	0	1	25	4	4.10
Users trust valuations Q15	0	1	4	21	3	3.90
Users trust valuations AVERAGE						**4.00**
Users trust system Q16	0	2	8	17	2	**3.66**
Trust (T) AVERAGE						**3.54**

The thesis investigated UAE RVS Principle 4: Trust using framework indicators and questions, involving collaboration (Q14), trust of valuations (Q5, Q15) and system trust (Q16). The aggregated score for responses to these four questions, generated a trust scenario score of 3.54 between 'OK' and 'Good'. As mentioned, the research questions were closed, offering respondents no opportunities to refine

their thoughts and this could influence the reliability of our assessment. There were serious concerns that too many respondents were over-optimistic in their views about the ability of the system to generate consistently reliable valuations, during times of great uncertainty. Hence the score should be treated with some caution as it has to be linked with other factors to make a sensible judgement about the real degree of trust by players in the system as opposed to their stated views.

6.7 Principle (5) Standards salience

The fifth aspect of valuation systems which the explanatory approach considered important for the system was the prominence of international valuation standards, reflected by Principle 5: [Standards salience] which requires that in a mature system valuation standards are widely disseminated, discussed and best practices implemented. In practice, this means that agents operating in the system are qualified professionals who are familiar with key valuation texts (such as Rees and Hayward 2002; Isaac 2003; Scarret 2008; Estrada 2011) and can access sources such as RICS iSURV to refer to international standards resolve any disputes

For standards salience, the research examined and analysed results of several indicators based on two open and two closed questions but also considered the earlier embedded research. Each Likert-scale question was analysed via Excel to aggregate the scores of all respondents to find the mean, representative score for each aspect. As discussed earlier, no weighting was used. Full analysis is given in Appendix 6.8. We now analyse each question in turn.

The interviews reviewed the extent to which the notion of standards salience was addressed in the current system via four questions, including whether valuation standards were disseminated or considered relevant (Q3, Q8). Question 3 was open-ended and asked about when valuations were required and for what purpose in organisations. Q8 was closed to appraise the relevance of valuation standards in their work. Another indicator which examined the implementation of standards was Q9 which asked whether standards were discussed in various departments. If nothing was ever discussed, then the assumption was that standards were not salient. Finally, Q4 was an open-ended question to check whether valuers followed the appropriate methods given the purpose of the valuation (Scarrett

2008). This was combined with Q8 on the understanding that if valuers consider standards relevant and implement them, then salience is excellent.

For the first aspect of salience, Q3 asked respondents whether, *In your organization, when are valuations required and for what purpose?* The previously assessed Likert scale score is in the institutional capabilities section was 3.5 (see Appendix 6.8). Q8 was the second question, which probed whether or not standards were disseminated. It asked whether, *in your work, how relevant are valuation standards?* Again this question was answered as part of the professional section, within capabilities. The previously assessed Likert scale score is 2.

The other aspect of salience examined by the interviews was in Q9, *Thinking about your department, how frequently do you discuss issues related to valuation standards?* The research found that the discussion of valuation standards among the respondents varies considerably. Two respondents claimed they were involved in daily discussions about standards but others were preoccupied with other matters. Six discussed valuation standards weekly or monthly, whilst seven only annually and eight respondents never raised the issue of standards at all. These results suggest that the salience of valuation standards in the system is inadequate.

Criteria	Daily	Weekly	Monthly	Annually	Never
Respondents	2	6	6	7	8
Imputed ordinal ascending rank	1(v.poor) Never	2 (weak) Weak	3(OK) Monthly	4(Good) Annually	5(Excellent) Daily
#	8	7	6	6	2

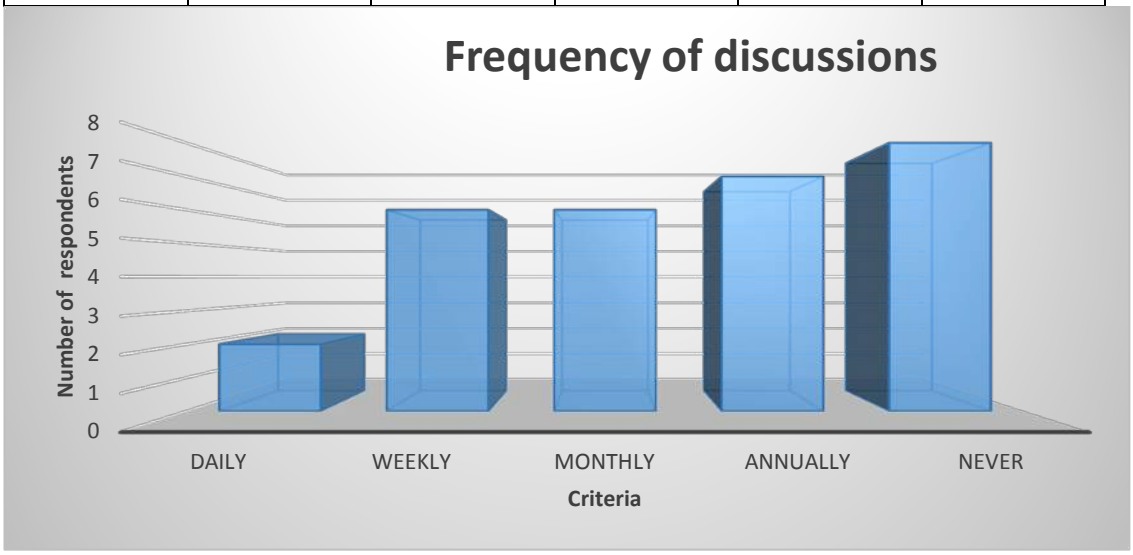


FIGURE 6.11: Q9 VALUATION STANDARDS FREQUENCY OF DISCUSSION

Q9 results generated in *Appendix 6.8* a score of 2.55 which is between normal (OK) and weak. However, as RICS (2014) states that different circumstances affect how different countries can adopt international standards. It may be that, in the Dubai real estate market, local standards and practices are more important than international ones.

The issue of whether standards are actually implemented was assessed by Q4, *for each of the valuation purposes you just mentioned, could you please tell me something about the method(s) of valuation practiced?* Question 4 was used previously to evaluate professional capabilities and administrative competencies (see above). The previously assessed Likert scale score was 3.93 (see Q4 above).

The other question probing for answers about whether standards were implemented was Q8 *In your work, how relevant are valuation standards?* This question also appeared before as part of the evaluation of professional capabilities. As this is not a statistical analysis but a qualitative one, multicolinearity between variables is not really an issue. Positively, most respondents (18/29 or 68%) stated that valuation standards were at least 'quite or very important' but many of these considered them 'critical' as illustrated below. However, it is concerning that for a substantial minority of respondents, valuation standards are considered irrelevant for valuation.

IMPORTANCE OF VALUATION STANDARDS (Q8)

Criteria	Largely irrelevant	Unimportant	Quite important	Very important	Critical
Number of respondents	8	1	4	6	10

The previously assessed Q8 Likert scale score is 2 (see Q8 above).

Table 6.4 below summarises the results of the embedded research and interviews concerning the second major aspect for a mature RVS – robust information systems.

TABLE 6.4 SUMMARY OF STANDARDS SALIENCE ANALYSIS (SOURCE: AUTHOR EXTRACT APPENDIX 6.4)

Valuaton standards disseminated Q3						3.50
Valuaton standards disseminated Q8						2.00
Valuaton standards disseminated AVERAGE						**2.75**
Discussed Q9	8	7	6	6	2	**2.55**
Implemented Q4						3.93
Implemented Q8						2.00
Implemented AVERAGE						**2.96**
Standards salience (S) AVERAGE						**2.76**

The fifth scenario from Principle 5: [Standards salience] for a robust RVS involved investigating whether or not standard were salient. The research investigated if in the UAE RVS system, valuation standards are widely disseminated, discussed and whether or not best practices were implemented. Three indicators and five questions were involved in the assessment of standards salience: namely whether or no valuation standards were disseminated (Q3, Q8), discussed (Q9) or implemented (Q4, Q8). The overall results generated in the interview analysis spreadsheet (*Appendix 6.8*) generated a P5 (S) score of 2.76 or a 'FAIL' below normal. However, as noted the accumulated answers of respondents is without any reflection or interpretation and actually international standards may not be relevant in the circumstances (RICS 2014). It could be argued that a lack of international standards being implemented in Dubai would discourage institutional investors from other countries. Instead, it could lead to a two-tier market. One tier involves mainly domestic market operators dealing with small scale developments, while the second tier deals mainly with high profile large scale projects involving international players.

6.8 Conclusion of Operational Phase

To manage development pressures and improve resource allocation, rapidly growing cities like Dubai need reliable administrative and development information systems of which the RVS forms an important part. A residential valuation system includes digital database, procedures, networks and relationships with private sector players like development companies, banks and commercial real estate firms (See Chapter 3). The research has evaluated the residential valuation system in Dubai using a variety of methods, including web-based research, embedded observations, discussions and archival research, site visits, exploratory statistics, expert interviews and a focus group discussions (Chapters 7 and 8 following). The exploratory statistical analysis of property transactions and empirical site investigations in Chapter 5 investigated the backdrop and found market complexity, exposure to regional risks and fluctuations of global capital markets (Healy and Palepu 2001; Schiller 2015). The system generated reasonable valuations but there were errors in data integrity and procedural weakness which compromised fiduciary duty. The operational phase of the research involved both embedded observation and expert interviews. To determine whether the Emirati residential valuation system ('RVS') is 'fit for purpose'; the operational research used an assessment toolkit (draft explanatory framework) generated by the literature and preliminary practitioner discussions with five key aspects (scenarios): Valuation and other system outputs, Intelligence systems ('IS'), Institutional capabilities ('C'), Trust ('T') and Standards salience ('S'). The embedded research provided a useful backdrop to DLD operations but also supplemented the interviews. The interviews questioned the views of a range of agents operating in the valuation system about those features they considered important based on their work and overall understanding as players. The interviews were semi-structured with questions based on the four remaining valuation principles, although some open questions (Q6, Q7and Q18) were not linked to any particular concept, and so no tables of results for these questions were presented, although insights from these questions helped inform overall judgements about scenarios.

Principle 2 which covered the scenario about intelligence systems was assessed by indicators involving data governance, source transparency, rich information field, systematic updates and the use of analytical techniques such as statistics, forecasts and modelling. Some aspects of intelligence systems helped strengthen capabilities. The other feature necessary for a mature valuation system is capable institutions which demonstrate governance, professionals, administrative competence, supportive technologies (adaptive) and above all meta-cognition or the ability of professional valuers to make sensible judgments in fast changing markets with information asymmetry. Trust is also a feature of reliable system systems and was investigated by considering the degree of collaboration, users trust in valuations and the whole system. Finally, the explanatory framework pointed to the importance of prominent valuation standards in a mature system. To evaluate system salience, the research considered three indicators (valuation standards dissemination, discussion, and implementation).

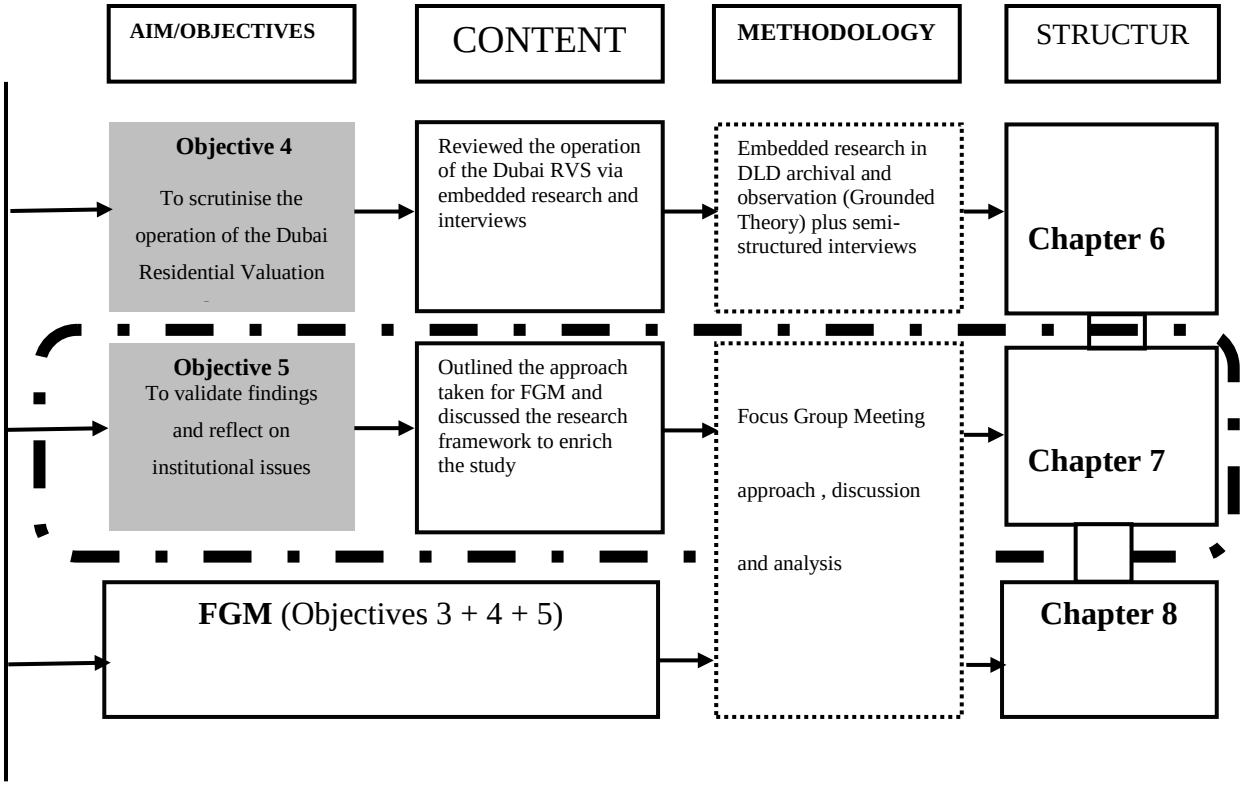
The Operational Phase interview results generated mean scores for four key aspects of UAE RVS performance (see Appendix 6.8)

- P2: Intelligence systems FAIL
- P3: Institutional capabilities FAIL
- P4: Trust OK
- P5: Standards salience FAIL

The results of Ch5 and Ch6 suggest some weaknesses in information systems, capabilities and standards salience. For P4, even though most stakeholders said they trust the UAE residential valuation system, this could be due to the unrepresentative and small sample and issues of interview bias (Katz 1983). It is worth thinking about these results in the light of valuation literature. The research here involved only 29 Emirati RVS stakeholders, most of whom actually worked at DLD and so could be biased. McParland *et al.* (2002) analysed 110 European valuers across several countries and found that client requirements, information available and market structure influences the valuation techniques adopted. These authors found that even using a comparative approach, valuers need to make careful judgements and require detailed data. The research also highlighted the

critical role of rich information systems for agents to make informed decisions in imperfect, evolving and volatile real estate markets. The result concurs with the planning, evolutionary economic and behavioural finance literature (Healey 1992; Ball 1998; Zimmerman 2001; Akerlof and Shiller 2009). Currently, in Dubai rich information is not impartially provided. The implications are that the system is not configured to provide baseline property data, necessary to help implement much needed tax reforms. The current fiscal position of the Emirates and Dubai suggests an overreliance on oil and gas revenues (see s5.22). Property-related taxes could help diversify the UAE tax base. Possible tax sources include taxes on transactions (sales), property services (VAT), capital gains or land value uplift (value capture). To check results, discuss these findings, refine and enrich the analysis, the research conducted a Focus Group Meeting in Chapters 7 and 8.

Chapter 7: Current challenges in the Dubai residential valuation system



7.1 Introduction

The final phase of the research is a reflexive one which utilised a Focus Group Meeting (FGM) to validate the explanatory framework but also to enrich the study. The earlier Exploratory and Operational research phases used the multi-dimensional valuation toolkit to assess the extent to which the current system compiled with requirements for valuation in a mature market. On the surface, data analysis and stated interview responses suggested that valuations were broadly reasonable and the system was trusted. However, there were some concerns that these results were biased on other aspects of the system, the embedded analysis and interviews clearly identified system failures with inadequate information systems, institutional weakness and lack of standards salience. Other concerns which emerged involved metacognition, complex projects, fiduciary duties and valuer independence.

In addition to generating new perspectives from the discussion between the valuation experts, the focus group formed an important element of the triangulation strategy employed in this thesis to evaluate the robustness of Dubai-RVS. Hence, this chapter draws components of evidence together and provides a holistic assessment on the current nature of valuation situation, policies and practices in the Emirates and in Dubai enriching the qualitative and quantitative evidence presented in earlier Chapters. The FGM included practising valuation experts who reflected on and discussed earlier research results but also examined valuation practices and issues in more detail.

The chapter is presented in three main sections. This first one introduces FGM theory and the Framework Method whilst Section 7.2 outlines the design and practical conduct of the FGM. The third section (Section 7.3) presents the results using inductive Framework Analysis.

For Powell and Single (1996: 499-500), a focus group is ‘selected and assembled by researchers to discuss and comment on, from personal experience, the topic

[and] employs guided, interactional discussion as a means of generating the rich details of complex experiences and the reasoning behind actions, beliefs, perceptions and attitudes'. In March 2017, the Dubai Real Estate Institute (DREI) hosted a panel of public and private sector UAE valuation experts and practitioners. Technically, DREI is an ideal location for a focus group meeting on valuation. Ideally, focus groups should be conducted in neutral settings with no special significance to participants so that the meeting can be frank and discussion unhampered and critical (Powell and Single 1996; Liamputtong 2011, Ritchie and 2003). However, practical considerations of actually getting participants to attend the meeting prevailed over such methodological concerns.

7.2 Planning and conduct of the Focus Group Meeting

The organisation of the Focus Group Meeting (FGM) involved a number of key steps to bring together a representative panel of experts from different professional backgrounds involved in the RVS. This section contextualises the preparations, realisation and limitations involved with the conduct of the FGM. The FGM was organised in collaboration with Dubai Land Department and the Royal Agricultural University and was held in March 2017.

7.2.1 Design of the FGM

The FGM was designed to enrich other aspects of the empirical research and extract further information in relation to research to facilitate a triangulation of research evidence. Prior to the FGM, a discussion paper was formulated and circulated to the invited participants (Appendix 7.1). The FGM briefing paper set out the UAE valuation research context and its goal of improving the system for Dubai Land Department and other stakeholders. Participants were informed that the FGM would help evaluate preliminary research results, identify any possible

gaps and produce useful feedback from practitioners. A week prior to the meeting, these attendees were sent a brief summary of the initial findings. The focus group discussion guide and timetable ensured that questions were sequenced from less to more sensitive questions. The discussion paper explicitly identified the five themes to give clear direction to the focus group. The duration of FGM was planned for 3 hours, allowing a 30 minute period of discussion for each theme and leaving two 15 minute periods for introductory and concluding remarks.

7.2.2 Selection of the FGM participants

The FGM attendees were practising Dubai-based valuers and other experts. Attendees included a broad cross-section of stakeholders with an investor, consumer, financier, retail analyst, developer, professional real estate consultants. They represented a wide range of institutions, including DLD, Noor Bank, Mashreq Bank, JLL, ADCB and Savills. Initially, the research planned to select FGM attendees based on a proportion of system agents (identified using Figure 3.4). However, due to the lack of readily available data on stakeholder numbers, this initial plan was dropped and the research adopted a pragmatic approach (see Methodology). Subject to reasonable system representativeness, attendees were identified based on personal contacts established during the embedded research, likely contribution to interesting valuation areas and, finally, willingness to attend.

Introductions and 'icebreakers' helped generate a congenial atmosphere (Powell and Single 1996). The FGM participants were selected in a two-stage process. As outlined in Chapter 2, the theoretical constituents of RVS structured an initial list of relevant stakeholders. During subsequent embedded research, names were identified and a list compiled for interviews (see Chapter Six). This list formed the basis for the FGM participants. However, as focus groups are commonly based on small groups (McGreal et al 2002), with an optimum size of between 8 to 15 persons, the initial list of the respondents was reduced using criteria of valuation experience, knowledge or reputation amongst the Dubai valuation community.

The purpose was to generate a representative panel of participants, comprising public and private sector valuers, real estate agents and bankers. To ensure participant's interest and availability, each interviewee was originally asked whether they would be willing to participate in the FGM at a future date during 2016. This resulted in a shortlist of experts as potential FGM participants coming from the public sector, private sector and financial sector. The participants' area of expertise varied from policy making, agency, valuation and urban development. The final participants were selected from the short-list in consultation with research supervisors. A total of 20 experts were formally invited to the meeting of which 12 individuals participated (Table 7.1).

Each participant was sent a briefing note a week before the scheduled meeting (Appendix 7.1). The author and the thesis supervisor attended the Focus Group Meeting panel in February 2017 in Dubai, hosted at the Dubai Real Estate Institute (DREI).

Figure 7.1: FGM meeting March. 2017 Dubai Land Department [Source Author]

The session was recorded. A professional transcribed the FGM panel discussions and the script was then cleaned to cut out ‘noise’ - but taking care not to eliminate emotions and conversational nuances by mistake. Appendix 7.2 presents an extract of the cleaned, edited and coded FGM transcript which includes only anonymised contributions made by valuation participants.

TABLE 7.1: FGM ATTENDEES, DUBAI 2017, ILLUSTRATING BROAD CROSS SECTION OF RVS FUNCTIONS

Sector	Stakeholder	Gatekeepers	Informants
Government	Government sector	2 executives	
	DLD	2 senior technical executives	1 manager departmental manager
	DM		1 engineer
	RERA	2 senior directors	
GRE	Developers		2 valuers
	Government supported banks	2 branch managers and 1 property sections head	2 heads of housing departments and 1relationship manager
Private sector	International firms		2 valuation advisors
	Commercial banks	1 branch manager	
	End user		1 property owner
Academia	RAU	1 supervisor	1 student

7.2.3 Briefing the chair and FGM conduct

The meeting was chaired by a prominent DLD official who agreed to facilitate the conduct of the FGM and help to guide discussions. This selection was based on his previous position as director of Appraisal Department at DLD and his unique knowledge base of valuation in terms of policy and implementation in Dubai. The chair was briefed in advance on the process of the FGM and the necessary protocol and the role of the independent chair in directing and facilitating the

FGM. Amongst the issues discussed as part of the briefing was the need to ensure contribution by all participants and how to minimise monopolisation of the FGM by one or more of participants which has been a criticism of focus group methodology (McGreal et al. 2002). MKD introduced the author and his main supervisor to the panel. MKD was instructed to encourage equal group participation and allow participants freedom to raise unanticipated but relevant issues. When OS dominated discussion, the author and main supervisor intervened to rebalance the discussion.

Based on the FGM discussion paper, a power point presentation was designed in order to provide a framework for the direction of the proceedings (see Appendix 7.3). During the FGM, the researcher and his main supervisor took a participatory observant role. The main supervisor introduced the FGM to participants and it was necessary for him and the researcher to occasionally provide clarification of specific issues raised by the chairman on a limited number of occasions to eliminate interference, influence or manipulation of the discussion and subsequently the outcomes of the debate. These related to elaboration of the discussion themes and the research perspective, for example, to explain what constitutes the RVS and distinguish between long term public policy valuation objectives and the short term objectives of private investors and developers.

7.2.4 Coding, assurance and transcript analysis

A full transcript of the proceedings was recorded. It is a written exact (word-for-word) account of the verbal interaction. The transcript was then filtered and analysed systematically, looking for further insight into Dubai-RVS and to confirm that transparency (information), institutional capabilities and standards salience were important issues for practitioners (Appendix 7.2). For assurance, the researchers independently reviewed extracts of the transcript text to assess the validity of initial coding. NVivo software was used to explore both the full-length FGM transcript and the cleaned and edited version to generate two word cloud diagrams.

As the cleaned transcript was of manageable length, the two-stage manual analysis, using coding and word searches, made sense. Coding made use of the explanatory framework (e.g. valuation principles) and initial exploratory results but also allowed some issues to emerge inductively. Codes included things (behaviours, incidents or structures), values (which inform or underpin statements) or emotions. Note that indicative coding is CAPITALISED in squared brackets for subsequent framework analysis. Some words in the text were altered to avoid double counting or assigning the wrong meaning. So, for example, 'standard' was replaced by 'usual' when not referring to valuation standards whilst 'valuation basis' and 'valuation purpose' were coded as [VALBASE]. Simply counting stated categories was insufficient since the assignment of codes requires a critical interpretation of text to assess meaning without being overly prescriptive. For example, the word 'quality' can have structural and neighbourhood meanings but may also refer to data or institutional quality. One concern was that sometimes a respondent mentioned the same category several times over a few sentences to convey meaning. The research considered these sentences as essentially conveying one idea and so only scored the notion as mentioned once. However, an additional difficulty was to conclude from the transcript the emotions involved. It was difficult to identify 'uncomfortable', 'troubling' or 'unexpected' phrases or hesitations which did not 'fit' with the rest of the account. To enable the systematic comparison of data across interviewees, a matrix was constructed to automatically summarise data and identify categories). For ease of analysis, codes were grouped and abbreviated into draft framework (toolkit) categories. The research conducted transcript analyses in two stages. First, a fifth of the transcript was sequentially reviewed line by line (2,730 words or 21 %) to identify main codes. Next, the identified codes were used for key word searches. 309 code instances (identified key words) were logged. Of these, 177 (57.2%) citations were attributed to specific stakeholders with the unattributed balance of 132 (42.7%) code occurrences separately recorded as ('unattributed').

7.3 FGM results

The FGM is a social phenomenon which reflects valuation practices current in Dubai. The chapter used a qualitative approach and NVivo software to evaluate, interpret and explain the moderated FGM transcript. This transcript is included in the chapter together with the identified codes (or conceptual nodes in NVivo terminology). While NVivo facilitated the application of qualitative techniques and helped manage, explore and find patterns in data in the end, it was technical valuation and researcher analytical expertise which interpreted the FGM transcript meanings. Handling FGM qualitative data was not a step-by-step process (import, code, query, interpret and then write-up). Instead, it involved an iterative interpretations process. Theme nodes are collection of references about a specific theme, topic, concept, idea or experience such as ‘metacognition’. Nodes were based upon the RVS draft framework and used to 'code' the cleaned and edited FGM transcript. For example, while exploring the transcript, any text related to ‘meta-cognition’ was identified. Data was first explored, cases or respondents identified (case nodes) and text initially coded (theme nodes). After reflection and discussion, the coding was refined. Several queries were run and gradually insight into the residential valuation system emerged.

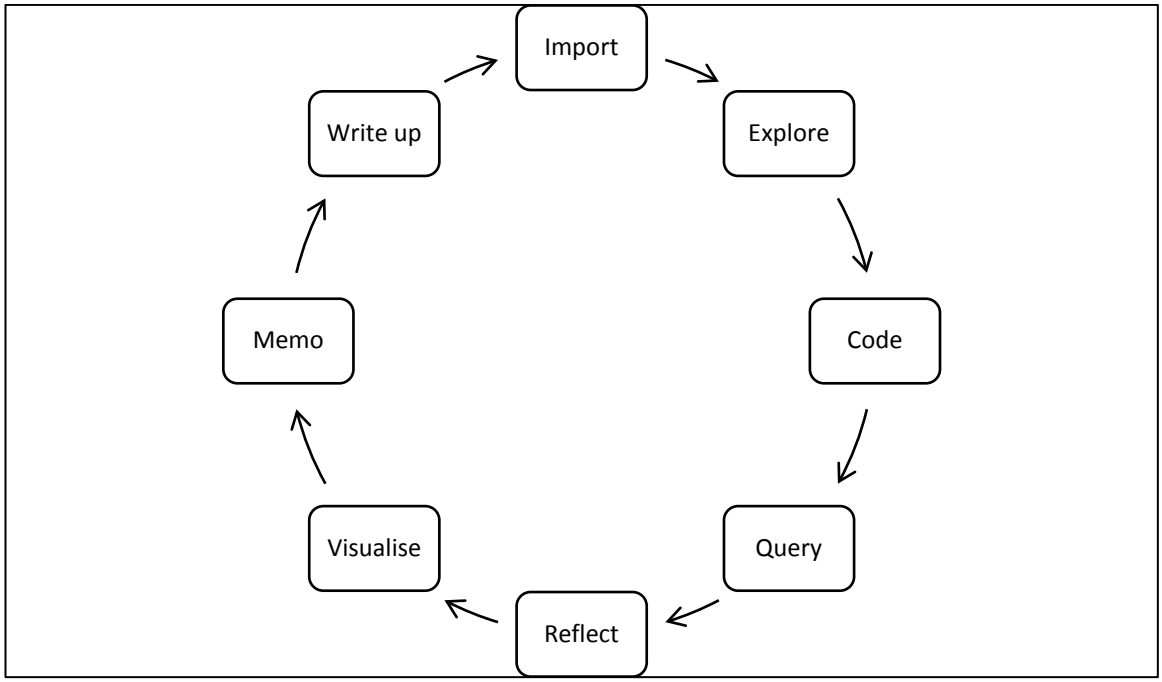


FIGURE 7.2 ITERATIVE QUALITATIVE APPROACH TAKEN TO INTERPRET THE FGM (SOURCE AUTHORS, ADAPTED FROM NVIVO11 PRO GUIDANCE 2017)

7.3.1 Initial word clouds exploration

Using NVivo Pro 11, wordclouds were generated based, first on the original (unedited) transcript of the complete FGM and, second, on the treated (edited) FGM transcript as illustrated in Fig7.3 and 7.4 below.

FIGURE 7.3: WORD CLOUD ORIGINAL FGM (SOURCE: AUTHOR USING NVIVO11 PRO AUGUST 2017)

Figure 7.3 above illustrates that the untreated transcript contained a lot of irrelevant material and that the integrity of the FGM was somewhat undermined by the dominance of the chairman (speaker)| who held a powerful position at the DLD and a vested interest and in assuring the researchers that the valuation system was well functioning. However, the second word cloud after transcript cleaning is more useful.

FIGURE 7.4: WORD CLOUD TREATED FGM TRANSCRIPT (SOURCE: AUTHOR USING NVIVO11 PRO AUGUST 2017)

Figure 7.4 cuts out the prominence of the speaker but highlights that the word 'know' and 'think' appear rather too often whereas the term valuation standards is not visible which indicates potential system weakness.

7.3.2 Framework Method

Framework Method (FM) is a systematic method to categorize and organize unwieldy qualitative data such as semi-structured interview transcripts. It provides a thematic analysis of qualitative content. To draw explanatory conclusions, it identifies data commonalities or differences and investigates relationships. Originally used for social policy research, FM is now common in medical and health research (Ritchie *et al.* 2003). FM analysis first assigns codes to groups of sentences or text segments of and then groups these **codes** into clusters of similar and interrelated ideas, **concepts**. A tree diagram structures categories and codes. As abstraction proceeds, categories derived from raw data, are associated with themes or key data analysis propositions (final output). An output matrix includes rows (cases) and columns (codes) with data 'cells' to systematically structure and reduce data. Cases are individual interviewees. Framework Method is a flexible tool not aligned with a particular epistemological, philosophical, or theoretical approach. Indeed, the Framework Method works well with deductive, inductive, or combined qualitative analysis. Neither qualitative nor quantitative analysis is ever purely technical. Rather, the research process involves critical reflection and judgement to determine meaning.

7.3.4 Framework analysis and results

Using the iterative approach outlined earlier above, the research identified 61 codes (nodes). All but six were intentionally linked to the RVS draft framework (toolkit). The results of the Framework analysis are illustrated in Figure 7.5 and 7.6 and Table 7.2 below. For simplicity, after many iterative steps, codes were eventually grouped according to the explanatory framework.

FIGURE 7.5: FRAMEWORK ANALYSIS OF FGM: CLUSTER DIAGRAM

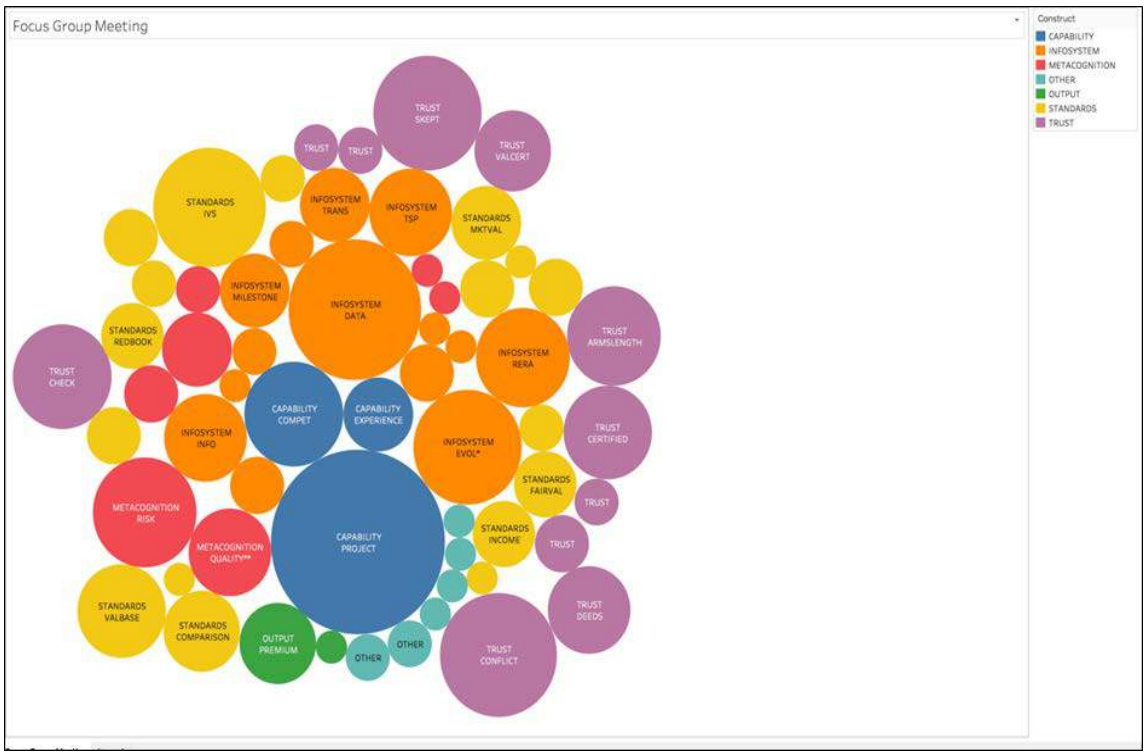


TABLE 7.2: FRAMEWORK METHOD MATRIX, INDICATING CATEGORIES AND KEY CODES [SOURCE AUTHOR 2017]

CONSTRUCT	CATEGORY	C	P	R	Y	OS	OF	F	M	OF	K	AA	UNATTRIBUTED	Total		
OUTPUT	OUTPUT	1											0	1		
OUTPUT	PREMIUM					4		1					1	6	7	2.27%
INFOSYSTEMS	INFO	1		2	1	2		1					0	7		
INFOSYSTEMS	DBASE				2								1	3		
INFOSYSTEMS	INTEGRITY				1								0	1		
INFOSYSTEMS	DATA	1	2	1		4			2				8	18		
INFOSYSTEMS	TRANS		1	1									3	5		
INFOSYSTEMS	TSP	2				3							2	7		
INFOSYSTEMS	OUTLIERS				1								0	1		
INFOSYSTEMS	TECH		1										1	2		
INFOSYSTEMS	INDEX		1		1								1	3		
INFOSYSTEMS	EVOL*	2	2		1	1				1		1	4	12		
INFOSYSTEMS	LOCATION					1							1	2		
INFOSYSTEMS	RERA								3				6	9		
INFOSYSTEMS	REDIN				1								0	1		
INFOSYSTEMS	MILESTONE					1							4	5	76	24.60%
CAPABILITY	EXPERIENCE				1								4	5		
CAPABILITY	COMPET	1				2							7	10		
CAPABILITY	PROJECT	3				8					1		19	31		
METACOGNITION	CPLEX	1											0	1		
METACOGNITION	RISK												11	11		
METACOGNITION	FIRESALE					2							0	2		
METACOGNITION	QUALITY**					1		1			1		4	7		
METACOGNITION	BUBBLE							1					0	1		
METACOGNITION	DISCUSS				1								4	5		
METACOGNITION	UNIQUE	2				1							0	3		
METACOGNITION	EVOL*	2	2		1	1				1		1	4	12	88	28.48%
TRUST	*SKEPT*					1	1						8	10		
TRUST	CHECK	2				2							3	7		
TRUST	DEEDS	1	1										0	2		
TRUST	TRUST	2	1		4	1		1					0	9		
TRUST	ARMSLENGTH				1	1							0	2		
TRUST	INDEP		2										12	14		
TRUST	CONFLICT	3				5							0	8		
TRUST	CERTIFIED					1	2						0	3		
TRUST	CREDENTIALS						1						1	2		
TRUST	ETHICS	3				1	1						1	6		
TRUST	VALCERT	1											0	1	64	20.71%
STANDARDS	STD	1	1		1				1				4	8		
STANDARDS	VALBASE	1											2	3		
STANDARDS	VALMETH		2		2								2	6		
STANDARDS	COMPARISON	1		1	2	1							0	5		
STANDARDS	MKTVAL	1	1	1		1							0	4		
STANDARDS	FAIRVAL	1	1			1							0	3		
STANDARDS	INHERITVAL	1			1	1							0	3		
STANDARDS	VALREPORT	1											0	1		
STANDARDS	VALCERT	1											1	2		
STANDARDS	LTV					2							0	2		
STANDARDS	INCOME				1	1							2	4		
STANDARDS	DCF				1								1	2		
STANDARDS	PROFITS				1								0	1		
STANDARDS	COST	1			2								0	3		
STANDARDS	REDBOOK							1					3	4		
STANDARDS	IVS	3				3							7	13		
STANDARDS	RICS				1			1					0	2	66	21.36%
OTHER	MORTGAGE							1			1		0	2		
OTHER	CUTOFF					1							0	1		
OTHER	MISTAKES					1							0	1		
OTHER	RANGE	1				1							0	2		
OTHER	CREDIT					1							0	1		
OTHER	ASSUPTIONS					1							0	1	8	2.59%
													132	309	309	
															42.72%	100.00%

Notes:

* Evolution involves both infosystems and metacognition

** Quality related to built environmnet not institutional quality nor data quality

*** 'Standard' replaced by 'usual' when not refering to valuation standards

**** Valuation basis or purpose

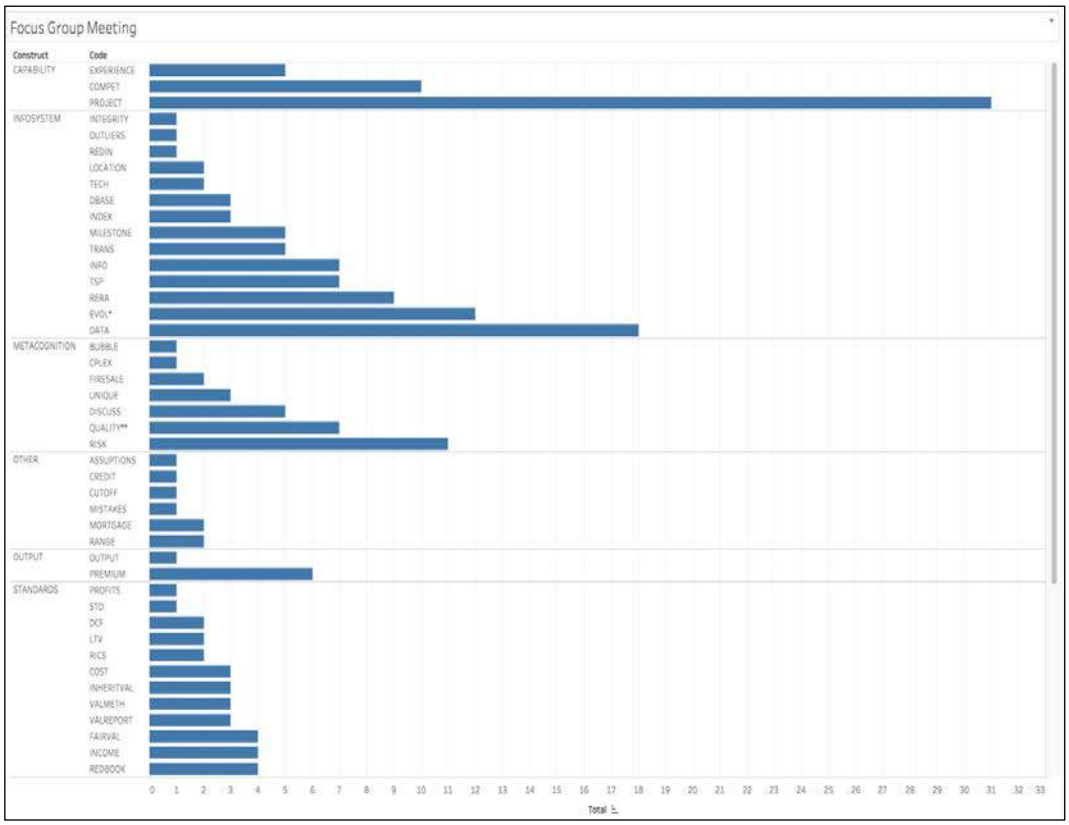


FIGURE 7.6: FRAMEWORK ANALYSIS OF FGM: CODE FREQUENCY LINK TO CONCEPTS

The FGM panel transcript analysis validated the residential valuation system toolkit. Apart from the reliable outputs (policies, regulations, valuations, reports), other RVS notions were well represented in the expert discussion transcript with only 2.6% of comments not easily assigned to the main toolkit RVS areas of output, information systems, capabilities, and trust or standards salience. The analysis of the expert discussion revealed that stakeholder attention was focused on the notion of 'capability'. It was the most prominent construct (with 28.48% of related coded citations). Within the notion of capability, the FM identified 'metacognition' as a critical aspect of the UAE valuation system. The rapid growth of the Emirate generates a large number of complex and very individual projects whose valuation depends on an assessment of risk, degree of completion and likely profitability. Valuers face difficulties in judging project/place [QUALITY] as well as [UNIQUE] project, site, engineering and market complexity [CPLEX]. According to C, for example, '*It's a [UNIQUE]*

[PROJECT], so you have to maybe look at [INCOME] yet because it's still being built, or maybe…what's the last method, the construction [COST] methodology. Okay? So, that's the first thing, so I cannot compare K properties to something else in the region – this would not do it justice.

The fact that the term [PROJECT] was the most cited code in the transcript (mentioned 31 times) implies that valuers spend a lot of time worrying about project completion stage, commercial feasibility of schemes and their risk. Difficulties in assessing the final commercial result are compounded by macro-economic risk of [BUBBLEs] in a volatile region ([RISK] - cited 11 times) which could involve a possible [FIRESALE]. For example, F, talking about her experience in Kuala Lumpur, though it was an, '*artificial market because the prices were high and, at the same time, [an over-stock] of property ….Banks sometimes can be overgenerous with valuation'*. Her comment provoked some laughter which was taken to indicate a certain degree of scepticism in bank valuation in exuberant market conditions *[SKEPT]*. Hopefully, as the market evolves [EVOL], investor risk exposure will decrease with inter-departmental deliberations between regulatory experts, professionals and practitioners [DISCUSS].

Apart from metacognition related to complex projects, analysis of the panel transcript also found that the other main stakeholder concerns involved:

- A lack of quality data (18 citations)
- Independence between valuers and their clients (cited 14 times)
- The implementation of International Valuation Standards (13 times)
- Coping with market evolution (12 times) in terms of information systems and within competence under metacognition
- Valuer competence (10 times)

Ten instances of scepticism were detected from the text analysis which confirms some of the system weakness detected with respect to independence of bank valuers and the lack of transparent data.

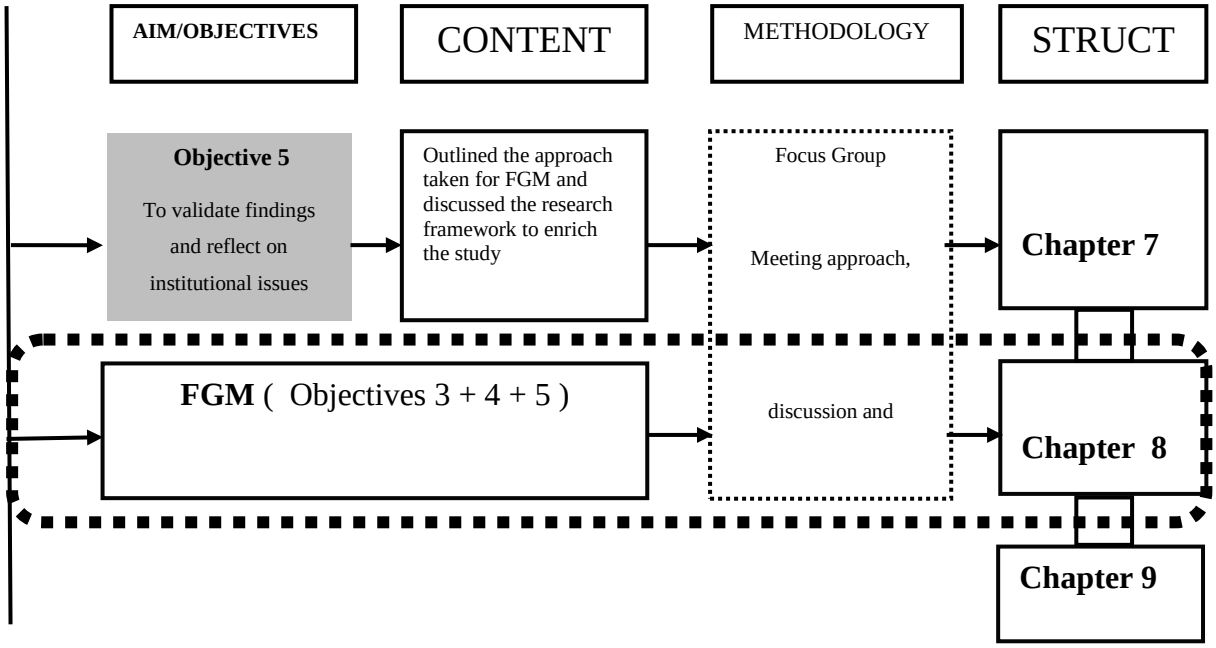
7.4 Conclusion

This chapter has explained how the Focus Group Meeting (FGM) was conducted and analysed. The FGM was held in Dubai during early 2016 with key residential system agents involved in different aspects of property valuation, including, permissions, agency, investment, development and financing. The meeting was held at the Dubai Real Estate Institute (DREI) which raised several procedural concerns because the setting was not entirely neutral and the chairman was a prominent member of DLDVC. Nevertheless, the practical reasons of actually being able to bring all the agents together in a pleasant and professional setting gained over methodological concerns. In any case, reasonable mitigation measures were adopted to counter any potential issues so that the atmosphere was non-judgemental and permitted some robust debate with diverse and spontaneous opinions.

The FGM generated some rich, experiential feedback from practicing UAE valuers. Particularly important was the importance of having valuers with sufficient metacognition expertise judge risks associated with complex projects. The panel of experts and practitioners confirms the previous operational analysis weakness in the RVS relating to robust property and spatial information dissemination (transparency) as well as the need to strengthen metacognition capabilities and the implementation of regulatory reforms and professional valuation standards. The FGM helps to triangulate research evidence collected via embedded analysis, site visits, statistical analysis and interviews as reported in Chapters 5 and 6. The FGM discussions provided further insight into valuation practices, methods and issues as well as improvement measures. The research identified the volatile external regional environment and rapid transformation of Dubai's built form as key valuation risks. Other concerns emerging from the research included the lack of independence of some DLDVC members and bank valuers as well as the failure to actually implement announced policies and measures. A lack of metacognition expertise and inadequate valuer training were also identified. It is against this background that the need for RVS improvements is clear.

As well as tackling the issue of valuer training and independence and implementing regulatory reforms, the other key RVS improvement measure is to develop and deploy an independent and transparent data-base of property transactions, integrated with spatial geographical and reliable planning data. The FGM discussions point out the need for reappraising the dominant role of the public sector in valuation. Perhaps it is worth considering outsourcing statutory valuations to a completely independent private sector valuation body. The FGM results validated but also enriched the RVS framework and previous chapter findings. Chapter 8 next analyses and integrates the results from all the different mixed methods (triangulation). The final chapter of the study comes to a final overall research conclusion, explains limitations and makes policy recommendations.

Chapter 8: Research findings and implications



8.1 Introduction

The Focus Group Meeting (FGM) in the previous chapter validated the explanatory framework but also uncovered the importance of an independent and transparent property data-base, valuer 'metacognition' and difficulties with complex projects. Other concerns were the lack of independence of some valuers and delays in implementing property regime improvements. In the light of procedural deficiencies, alternatives to government dominance of statutory valuation were considered. The FGM results validated but also enriched the RVS framework. Chapter 8 here first brings together all the chapter findings (triangulation) and then integrates them. The synthesis considers the challenges facing the residential valuation system in Dubai and summarises themes related to the draft explanatory framework (valuation accuracy and reliability, information, capabilities, trust, standards salience) or which emerged inductively. The research highlighted some important issues beyond the draft framework which valuers, policy makers and other RVS stakeholders need to consider. In addition to the five principles, the design of a mature RVS needs to consider fluctuating capital markets, valuation system integration, property regime impacts, fiduciary duties, complex projects and metacognition. The final chapter of the study comes to a final overall research conclusion, explains limitations and makes policy recommendations.

8.2 Research findings

This section brings together the finding of the research before they are triangulated and synthesised.

The first chapter concluded by summarising the study's knowledge, social, commercial and environmental contribution. Conceptually, it integrated Austrian economic, institutional and systemic theoretical constructs to generate a strategic assessment toolkit. The explanatory framework structured the evaluation of residential valuation system performance. Methodologically, the research applied a sequential mixed methods approach with deductive and inductive aspects applied to Dubai's RVS. Socially, the toolkit could help to control property speculation, prevent low quality development and increase transparency to capture unearned increments. The research stimulated dialogue amongst policy and decision in the Emirates. Commercially, the study documented current Emirati valuation practices, identified weaknesses to bring maturity to the UAE property market. Richer information fields and systems should stabilise prices and increase sustainability. Another commercial contribution of the thesis was to stress information asymmetry. The research found policy and organisational constraints can hinder the implementation of global residential valuation standards or data dissemination. Environmentally, the thesis could help reduce the multiple environmental pressures on the Emirates such as poor air quality. In short, a fine-tuned RVS in conjunction with a planning policy reform should encourage more sustainable development.

Property is heterogeneous and its markets are imperfect, complex and segmented but also cyclical and prone to speculation. Value is affected by evolving planning regimes and government policy, especially the tendency to try to attract investment. Legal traditions, property regime, historical and social context all shape the specific bundle of rights associated with property. Chapter Two noted the structural and spatial heterogeneity of property, dual investment and consumption character, legal complications, imperfect markets and securitization by banks. An improved system needs to capture and update a rich information field which considers historical, spatial and social influences. Legal considerations mean that a robust system should capture ownership interests, rules or property regulations. Property information systems require capable professionals who understand the implications of complex interactions and Sharia law. The key features for a robust residential property valuation system were identified as well as how UAE housing market context and legal institutions could influence values. Three main themes emerged for the draft explanatory valuation framework. First is the importance a rich and systematically updated information field to capture spatial and capital market drivers or hindrances such as legal rights, social structure and indicators of place quality and planning details or the evolution of capital markets. The review of customary and Islamic law found that institutional clarity, capabilities and trust reduce risk and attract investors. However, to reach its first objective and identify all the features for a robust residential property valuation system the research needs to draw upon international practice and valuation standards. Nevertheless, as Keogh and D'Arcy (1997) point out, there is no single blueprint for a perfect market system.

The Emirati property market is developing in an unstable region where valuations are influenced by fluctuating oil prices, large capital flows, segmented markets and transformational mega-urban development projects. In Chapter Three, systems theory pointed to RVS output and feedback mechanisms, boundaries, components (entities), relationships, procedures such as current global valuation

bases, practices, standards and methods. The valuation literature revealed three valuation approaches and various methods. It found that reliable valuations require information to clarify 'market', 'investment', 'fair', 'mortgage' or other valuation base, a body of law, transparent regulation, and tightly governed competent institutions and well-known standards. Courts facilitate system coordination and support trust. A robust valuation system is characterised by five RVS principles and alternate scenarios.

- Reasonable valuation outputs
- Intelligence systems which provide a rich information field
- Institutional capabilities in governance, administration, human resources and meta-cognition and supportive technologies
- General confidence or trust amongst stakeholders (system relationships)
- Salient valuation standards

A sequentially explanatory mixed methodology underpinned the overall research strategy. First, the literature generated a draft multi-criteria framework (toolkit) involving results, intelligence systems, institutional capabilities, trust and standards salience to evaluate current valuation practices in Dubai. Then, multi-faceted empirical evidence was collected, using desk-based research, embedded research, case studies of locales, quantitative analysis of transactions and qualitative research. The qualitative research involved face to face interviews and a Focus Group Meeting. The pragmatic paradigm allowed for new thoughts to emerge during embedded, open-ended interview questions or during the Focus Group Meeting.

Analysis of the Dubai real estate markets revealed the implication of Emirati institutional landscape, the significance of the global credit market and the Emirati macro backdrop for valuation. Chapter Five found that significant regional and commodity price risks exposed UAE property markets to downturns in global sentiment, credit and trade (Healy and Palepu 2001; Schiller 2015). The site investigations confirmed complex and segmented markets with multiple projects. Statistical analysis of Dubai property transactions from 2007 to 2014 supported

previous qualitative market examinations that spatial submarkets in Dubai were segmented but also found significant outliers. It proved impossible to properly test (via correlations) that valuations were reasonable because the two DLD data sets (of prices and market values) could not be reliably matched. However, it was clear that the data contained many errors and captured insufficient property and locale details to undertake reliable automated valuations (AVM). Data errors suggested procedural weakness in oversight, checking and cleaning which undermines fiduciary duty of professional care owed by valuers.

While a blueprint is not feasible for all markets (Keogh and D'Arcy 1997), a mature valuation system has capable institutions which demonstrate governance, professionals, administrative competence, supportive technologies (adaptive) and above all meta-cognition or the ability of professional valuers to make sensible judgments in fast changing markets with information asymmetry. Trust is also a feature of reliable system and was investigated by considering the degree of collaboration, users trust in valuations and the whole system. Finally, the explanatory framework points to the importance of prominent valuation standards in a mature system. The Operational Phase interview results generated mean scores for four key aspects of UAE RVS performance.

- P2: Intelligence systems FAIL
- P3: Institutional capabilities FAIL
- P4: Trust OK
- P5: Standards salience FAIL

The results suggest some weaknesses in information systems, capabilities and standards salience. However, although most stakeholders said they trust the UAE residential valuation system, this could be due to the unrepresentative and small sample and issues of interview bias (Katz 1983). The research highlights the critical role of rich information systems for agents to make informed decisions in imperfect, evolving and volatile real estate markets. The result concurs with the planning, evolutionary economic and behavioural finance literature (Healey 1997;

Ball et al. 2012; Shiller 2012). Currently, in Dubai, rich information is not impartially provided.

The FGM generated some rich, experiential feedback from practicing UAE valuers. Particularly important was the importance of having valuers with sufficient metacognition expertise judge risks associated with complex projects. The panel of experts and practitioners confirms the previous operational analysis weakness in the RVS relating to robust property and spatial information dissemination (transparency) as well the need to strengthen metacognition capabilities. The research identified the volatile external regional environment and rapid transformation of Dubai's built form as key valuation risks. The FGM results validated the RVS framework (for example by complaining about the lack of an independent and transparent data-base of property transactions or the need for more expertise and valuer training) but also enriched the toolkit by stressing the issue of valuer independence.

8.3 Triangulation

Triangulation involves bringing together the results of the different methods around the main themes of the investigation. The first set of themes are the scenarios which relate to the draft explanatory framework (valuation accuracy and reliability, information, capabilities, trust, standards salience). Supplementary themes emerged inductively during embedded research, from interviewee responses to open-ended questions and during FGM discussions. Beyond the draft framework scenarios, other important issues which valuers, policy makers and other stakeholders need to consider include: RVS responsiveness to fluctuating capital markets, system integration, property regime impacts, fiduciary duties, complex projects and metacognition.

8.3.1 Valuation challenges and practices in Dubai

The mixed methods research revealed that although the valuation system in Dubai can work reasonably well at times, valuers are not sufficiently qualified nor independent of their clients so that during peaks and troughs of the property cycle, valuations are often unreliable. The other valuation challenge in Dubai is coping with complex projects, where it is difficult to determine either project commercial prospects, the exact stage of completion or whether risks could crystallise and undermine successful completion (on time, on budget and at right quality). Desktop, embedded, interview and focus group research confirmed information problems with the Dubai RVS. Valuers require an intimate market knowledge to judge the value of subject properties but data available often lagged the rapid pace of physical development. When the FGM participants reviewed their valuation experiences over the past decade, they highlighted how the Dubai market has evolved from an immature and local market to a developing and international one and that valuation practice has gradually tightened. The consensus gathered from the interviews suggest that if DLD wants to better support industry, the provision of improved information systems to all players would be beneficial and would help to progress the market to a more mature phase. According to focus group

respondents, the development and regeneration of Dubai over the past decade has seen dramatic changes in the urban form which can enhance or undermine valuations so that valuers need intimate knowledge of local conditions. However, focus group attendees indicated that, since the GFC, a more prudent pace of development has prevailed. There is less random public sector intervention in infrastructure, public spaces and public services. Focus group respondents stressed that while legislative reforms to RERA and DLD have been passed, many policy reforms have not yet been actually implemented. Focus group attendees considered the failure to implement proposed measures left gaps in some policy areas. For instance, many attendees faced unresolved operational and practical issues because RERA has not in fact issued any valuation standards. The focus group respondents highlighted the lack of continuity in urban planning has left some Dubai areas undeveloped for extended periods. This was confirmed by site observations and embedded discussions. The interviews and focus group revealed different valuation approaches and valuation experiences. It was noted that with major projects, involving several partnerships valuation became more complicated although partnerships simplified land acquisition process especially those projects involving DM. The same is also true in projects where material suppliers, contractors and other financial institutions become partners by accepting shares in return for their contribution.

8.3.2 Information systems

Valuers depend on quality and up-to-date market or other information to make assessments but all the data sources (desktop, embedded, interviews and focus group) revealed inadequate property information and lack of DLD support to provide more information to stakeholders. The average score for the interview when rating information systems was only 2.3 (weak). The open-ended interview questions and embedded discussions also revealed that internal valuers for GREs like Emaar, Nakheel have intimate project knowledge but this information is not usually available to outside valuers. At the FGM, there was a general feeling among participants that the current information systems were inadequate and that

DLD could do more to improve the system and make it more transparent. The focus group respondents complained of insufficient data on strategic development or megaprojects plans. Overall, all sources triangulate to the view that insiders have an unfair advantage which encourages property speculation that can undermine the long-term sustainability and success of Dubai's development. Furthermore, a number of focus group participants argued that the private sector has a limited profit-driven perspective. Some argued that government institutions should consider long-term social and cultural issues in its urban development plans. All the research (desktop, interviews, embedded and focus group) found that the system requires closer scrutiny in terms of transparency and public participation. Furthermore, focus group respondents wanted an independent evaluation of the performance of current projects in order to determine project commercial viability and long term social merit. All the research points to current information system failings and the need for a transparent property information systems, overseen by an independent board to ensure fiduciary accountability. The focus group respondents wanted property data to include more indicators about project sustainability.

8.3.3 Capabilities

All the research (desktop, site visits, interviews, embedded and focus group) suggests some issues with institutional capabilities related to governance, HR and systems support to ensure effective valuations. For example, the average interview score for the capability scenario was 2.94 (just under OK). A number of embedded discussions, interviewees and FGM participants revealed some concerns about the level of competence, training and independence of some valuers. They argued that many valuers working for banks lack independence. Valuation capabilities would be improved by proper due diligence and adequate supervision by regulatory financial authorities/agencies. Embedded discussion, interviews and the focus group all considered that it was necessary to train up or recruit valuers who had the capacity to understand and assess complex projects. The limitations of existing mechanisms were stressed relative to the extent of the

valuation needs in the Emirates where many large projects are continuously underway. All sources (embedded, interviews and FGM) suggested that an updated system should adopt emerging best practices from the wider national and international experience.

8.3.4 Trust

The desktop, embedded research, interviews and focus group all suggest that trust is an important feature of any advanced valuation system. While the average interview score was OK (3.54), there were concerns that this score was distorted by an unrepresentative sample and bias (Kiatz 1984). In both interviews and at the FGM, participants were asked the extent to which they trusted valuations in general and how trust could be improved between government and private sector. Interviewees and FGM participates considered that the most important constraints undermining trust in valuation system were failed projects or inflated valuations during times of exuberance (Schiller 2015). Embedded discussion, interviews and the focus group found that agents were conscious of the previous errors which had undermined the immature system prior to the GFC in 2008 but stated that the system had evolved towards a more mature market. FGM participants thought that extra resources would help build trust especially for valuations of complex projects. However, some participants were concerned that policies and programmes, previously announced by RERA, have not yet actually been implemented.

8.3.5 Standards salience

The literature reviews (Chapter 3) finding that valuation standards were critical to ensure that valuers properly considered the basis of valuation and used an appropriate valuation method correctly were triangulated by the desktop, interviews, embedded and focus group. In the interviews, valuation salience score 2.76 (weak) was confirmed by the embedded research which found a lack of

awareness of international standards. The standards issue generated a lot of discussion in the FGM. Participants were asked whether, in their experience, valuation standards were important and how often did they actually consult valuation standards in practice. Most FGM participants were aware of international standards but felt that RERA needed to get on and actually implement UAE based valuation standards to adapt international standards to the situation in the UAE and to an Arabic cultural context.

8.3.6 Other emerging themes

The first was the issue of turbulent global capital markets and their impact on house prices most famously discussed in Shiller (2015). The implications for the RVS is that the system needs to integrate with the central bank and economists to provide robust intelligence about sentiment and capital flows so that if the market becomes too hot, the government can adjust money inflows and credit to reduce housing price inflation.

The study found some initial difficulties in defining the unit of analysis because the interviews revealed that no one really had any idea of what such a definition involved. However, the study made use of the systems literature to clarify the term and how the RVS is part of the development system and interacts with the urban, legal and financial system (see Chapter 2). The implication for valuation system design is the need for collaboration between the various partners involved.

One of the key themes to emerge from the literature is that valuations are very dependent on the property and planning regime which changes in line with government policy. England has seen much change in its planning system and in regulations around housing and so too in Dubai, post the GFC in 2008, many new regulations were introduced which impacted on property values.

Fiduciary duties are special responsibilities that professionals in accounting, medicine, law and property owe to their clients. For the property profession, RICS (2017) publishes details in its ethical codes of practice. The embedded and exploratory research found many examples were valuers or agents in the system who seemed to have no idea of their responsibilities. A clear case in point was the failure to check the valuation data records which were supplied for the exploratory analysis, which contain many obvious errors such as apartments with zero or tiny interior areas or towers with 900 floors!

The interviews and the FGM both uncovered the importance of complex projects, which is such an important feature of fast-growing cities like Dubai. Valuers need to cope with complex projects where it is difficult to determine either project commercial prospects, the exact stage of completion or whether risks could crystallise and undermine successful completion (on time, on budget and at right quality).

Valuations in business and real estate are both an art and a science (Link and Boger 1999). It is therefore particularly important that the valuation system includes valuers with sufficient 'metacognition' or expertise to make sound judgements that integrate information from a variety of different sources to assess data reliability and estimate the risks associated with complex projects.

8.4 Synthesis

The analysis of evidence from the different elements of the research on valuation systems in the UAE with a focus on Dubai revealed several fruitful areas for further discussion. These ranged from the nature of the RVS and the fact that it is more than simply the digital architecture for valuation but involves professional collaboration and meta-cognition or informed professional judgement. The governance surrounding and independence of valuers is an important issue which emerged in the embedded research, in the interviews and during the FGM. The triangulation of the four sources of research evidence indicates that DLD lacks a

strategic perspective on its valuations. Currently, the focus is almost exclusively on the registration-raising aspect of valuation without considering the wider oversight role of government in planning Dubai's sustainable development and improving the quality of its built environment. Currently, many development projects are, unfortunately, only considered from the short-term commercial perspective, when in fact they impact on the long-term sustainability of Dubai. Although the research revealed a wider spectrum of valuation practise and competence, serious limitations exist in terms of major projects where the absence of participation by local people in decision making about the nature and outcome of such projects raises concerns that risks may be overlooked or the externalities of these projects, and the wider urban dominion neglected. Whilst the first generation of projects in Dubai did not consider any aspect of governance and participation, as the real estate market matures, an enhanced RVS will need to provide data to inform and empower local communities.

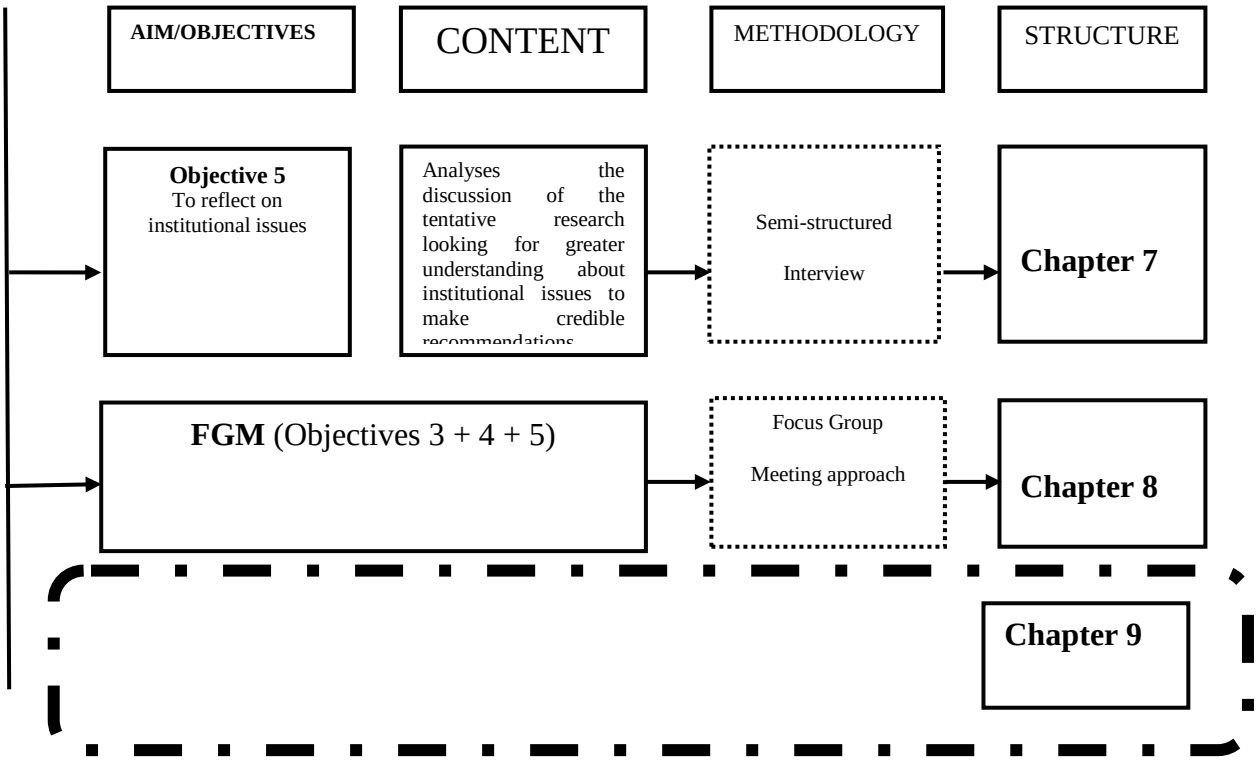
As currently constituted, the Dubai RVS is weakened by a lack of independent scrutiny and major project impact analysis. It appears that the system does not systematically provide the public or key valuation stakeholders with independent and credible environmental, economic and social impact assessments of major projects which have significant spatial and valuation externalities. Despite significant financial and material resources invested, some projects seem to be of poor design and quality. This in turn could lead to future urban dereliction, undermining the economic vitality of Dubai.

Whilst there are discussions between DLD and DM, there is scope to improve system collaboration. Valuations of complex projects would be more reliable if access to DM strategic planning documentation allowed major construction projects to be assessed in a wider strategic urban development perspective. This is a major weakness and indeed the speculative nature of Dubai's development projects undermines data transparency and trust and therefore investment confidence.

The research identified concerns about the cloudy nature of public private partnerships in the GREs like Nakheel, Emaar, Dubai Properties and DAMAC. In

order to increase investment confidence, there needs to be a great deal more transparency in relation both to management control and ultimate accountability within these GRE. A related issue concerns major projects where stakeholders would appreciate more clarity about project financial viability and, therefore, confidence in valuations. Whist the participation of local property developers in (Dubai Land Department Valuation Committee) DLDVC helps to speed up valuations and can attract local land and property owners to become project partners, the basis of this participation remains obscure and should be put on a sound and transparent footing. Active participation in local projects undermines valuation independence so that stakeholders cannot have confidence that DLDVC valuations are conducted without fear of favour. Unless the issue of DLDVC independence is addressed and professional criteria clear, trust in DLDVC valuations will remain limited. In order to maximise financial returns, developers have an incentive to undervalue non-arm's length properties where they have a beneficial interest.

Chapter 9: Conclusion



9.1. Introduction

The research systematically investigated and evaluated the valuation system in the United Arab Emirates with a focus on Dubai to answer the question: *What is an appropriate residential valuation system for Dubai?* To provide a complete answer to this research question, the thesis achieved its five objectives. First, it articulated the UAE valuation problem. Second it systematically reviewed the property, real estate market and valuation knowledge base and international practices to generate a robust valuation system toolkit (draft explanatory framework) which was then used to evaluate the backdrop, analyse housing markets and scrutinise the operation of the Dubai Residential Valuation System. To validate its findings and reflect on institutional issues, the research conducted a Focus Group Meeting of system experts and practitioners.

The research used a sequential mixed methodology with multiple phases and approaches, including web-based and exploratory statistical analysis, archival research, observation, interviews and a reflective focus group. In practice, the exploratory examinations were conducted in two main stages (qualitative and quantitative) with various examinations ranging from preliminary site visits [practical] to secondary examination of the Emirates' economic backdrop. Site visits were made to five Emirati sub-markets, which were supplemented by quantitative transaction analysis, looking to understand market structure and dynamics. These exploratory investigations detected some issues with Dubai Land Department (DLD) data and fiduciary responsibilities. DLD embedded investigations confirmed inadequate administrative practices, procedures and standards implementation. Semi-structured interviews with UAE valuation experts and practitioners completed the operational phase of research. The reflexive phase of the research involved a stakeholder Focus Group Meeting (panel) to corroborate or challenge them. The FGM findings support the relevance of the draft explanatory framework and its application to analysis of the RVS in Dubai.

9.2 Findings

The thesis noted the evolution of the Dubai market from an immature towards an emerging market. Real estate has underpinned Dubai's economic transformation in the past two decades but the GFC in 2008 illustrated the potential consequences of an under-regulated market. Reforms were decreed but not all the policies and regulatory measures have been adopted. To achieve maturity, the real estate market must address key institutional, professional, procedural and governance issues. Using a variety of methods and data sources, the research detected significant issues, including a lack of valuer independence, inadequate data systems, insufficient professionalism and inadequate dissemination of standards. These deficiencies undermine trust, especially for valuations of complex projects.

Information asymmetry and property market imperfection compound system weakness. Real estate is a positional, bundled good with spatial externalities and demand and supply are influenced by both fundamentals and sentiment. Internal and external factors drive both. Internally, a complex interaction between tenure, building and evolving location characteristics fragments residential property markets. External conditions alter capital flows, household numbers and global investment, particularly in extractive economies like the UAE, still reliant on oil and gas.

A central outcome of the research involved insights into the structure and dynamics of the Dubai housing market. Evidence from this research underlines that the Emirati property market is exposed to exogenous risks and also spatially segmented. The transformation of the Emirate from an insignificant area to a magnificent global trade, tourism, financial and logistics hub stimulated property markets. However, the 2008 Global Financial Crisis (GFC), continued regional instability and sustainably issues raise concerns. Dubai's dwelling stock is diverse (structure, design and build quality, energy-efficiency, tenure mix). Spatial differentiators include density, status (socio-economic profile), risk exposure (waste dumps), access to jobs and facilities, air quality, views and cultural fit. The implication is that Emirati property professionals need access to a

rich and continuously updated information field. Statistical market analysis involving thousands of Dubai residential market sales from 2007 to 2014 in five Emirati locales confirmed distinct submarkets and found 'Locales' to be a significant price predictor. Evidence from multiple research instruments employed in this research including embedded observation and interviews present a mixed picture. Overall, the embedded research confirmed issues with the current Emirati residential valuation system to be about the separation of powers (governance, independence) during DLD valuation process. Examples of best valuation practice contrasted with instances of poor record keeping and limited valuation supporting documentation. This was despite the fact that most valuers do keep records. Furthermore, evidence from 29 face-to-face interviews suggests that Emirati RVS experts generally trust system output (aka valuations) but are concerned about transparency (access to sufficient reliable information), professional valuation capabilities and the implementation or dissemination of international valuation standards. The interviews suggested failure of three main principles of intelligence systems, lack of institutional capabilities and standards salience, whilst "Trust" appears not to be an issue. Overall the findings suggest that the current Dubai system provides inadequate market information to most stakeholders. Due to information limitations, some banks rely on in-house valuations, conducted by non-qualified valuers who, by definition, are not independent of their client. Specifically, the income-based valuation of complex, incomplete projects is 'data hungry'.

The Reflective Phase of the research, based on discussions during a Focus Group meeting of practicing UAE valuers, experts and other stakeholders, validated the explanatory framework. Concerns were raised about the lack of professional 'capabilities' and valuer 'competence'. The focus group repeatedly stressed the need for valuers with 'metacognition' capabilities rather than ones with a limited mechanistic approach or those who are overly influenced by client pressures. Valuers need to incorporate specific design features and project complexity into their valuations. The rapid growth of the Emirate generates many special projects whose valuation depends on an assessment of risk, degree of completion and likely profitability. Valuers need to judge project/place design quality,

completion stage and evaluate risks related to site, engineering and market complexity. As well as project and site-related risk, valuations should incorporate macro-economic risks in a volatile region. Other issues raised included the lack of quality data, implementation of International Valuation Standards and ability of valuers to cope with market evolution. The focus group confirmed the evolution of the Dubai market towards more maturity is hindered by the failure to actually implement some of the valuation reforms, proposed after the 2008 Global Financial Crisis which badly affected the sector. The failure to follow up, means that the market is not fully transparent. Less well-resourced or poorly connected investors remain exposed to significantly more risk compared to their bigger or well-connected peers who support professional project meta-cognition capabilities by internal transaction databases and a global network of experienced and well-qualified property professionals.

The thesis of the Dubai residential valuation system evaluation has four parts. Firstly, the Dubai real estate market in particular and the UAE in general has experienced rapid transformation and propelled Dubai to a prominent regional headquarter city with global ambitions. Despite such transformation, the real estate market is still in an emerging stage requiring real attention to institutional development, real estate market practices, professionalization of real estate and greater transparency. Valuation remains to be a key concern.

Secondly, the draft explanatory framework put forward by this research provides a valuable model to analyse the valuation system. This points to development of a reliable valuation system that generates reasonable valuations underpinned by information transparency, administrative capability, end-user trust and valuation standards salience. The UAE valuation system faces significant external and internal challenges. Externally, the UAE is an open economy in an unstable region. Internally within the Emirates, 'value creation' via megaprojects and public relations is a significant feature of the UAE and particularly Dubai. Thus, almost overnight with the right backing, featureless desert can become highly prized real estate. Without reliable inside information on plans underpinning this

continuous land transformation process, valuations are unreliable. Whilst it has developed very rapidly and is becoming more professional, the UAE RVS still has several weaknesses in respect to its intelligence systems, institutional capabilities and standards salience.

Thirdly, the GFC exposed the real institutional, structural and professional weaknesses in the Dubai real estate markets. Many of the regulatory instruments introduced since the GFC have not been implemented. The result is a lack of transparency, inadequate due diligence valuer dependence on banks rather than independence and, most critical, some evidence of fiduciary irresponsibility in lending.

Finally, a viable and robust valuation calls for ongoing training and education, including for a new generation of Emirati nationals to be fully aware of international valuation standards and professional ethics which underpins sound valuation practices.

On the surface, reliable valuations seem particularly important for Dubai whose property and capital markets absorb regional oil and increasing Asian liquidity. On the other hand, many insiders benefit from valuation uncertainty as they can buy land for development relatively cheaply before value is created via the public announcements of forthcoming projects. The research highlighted that any robust valuation system extends beyond the digital hardware and software to the valuation professionals who sometimes need to make informed judgements about complex projects, particularly in fast growing cities like Dubai. To operate effectively, valuers need a trustworthy system which provides sufficient reliable information to ascertain market situation and determine spatial and structural quality or highlight any legal complications. Initial results suggest that key UAE residential valuation system improvements should focus on information dissemination, institutional capabilities and dissemination of valuation standards. The implementation of proposed regulatory reforms and dissemination of professional valuation standards via workshops and online learning platforms could help to address the metacognition issue, especially important in valuing incomplete but complex projects.

9.3 Contributions

The thesis has made a range of contributions in areas of theory, valuation practice, fiscal policy and technology, environmental and social fields. Theoretically, in the property field, the thesis is the first integrated study which blends aspects of three diverse theories (Austrian economics, systems thinking and institutional theory) with practical developer insights and industry valuation standards. The theoretical integration generated a unique valuation systems operational toolkit. Its second theoretical contribution of the thesis was its implementation of a sequential mixed methods approach with deductive and inductive aspects, applied to property.

For valuation practice, the thesis used its toolkit to identify critical valuation systems improvements in a fast changing but as yet immature property market in a

volatile region – the emirate of Dubai. The toolkit is not a blueprint but rather a learning device intended to provoke discussion among policy makers and stakeholders which can be applied to any locales or market. In many jurisdictions, one obvious solution which emerged from the thesis is to fix information deficiencies, perhaps by upgrading PropTech (see glossary) data solutions.

The thesis technological contribution was to provide an all-encompassing framework for the implementation of technological data upgrades. It stressed that an enhanced RVS must be supplemented by other geographic and planning Decisions Support Systems.. Land use conflict will not disappear after systems upgrades but, over time, richer data should help cut waste and poorly informed real estate projects. However, it warned against PropTech valuations solutions in isolation. Professionalism and metacognition via education or talent attraction and retention helps stabilise markets and stop ill-considered projects or excessive market volatility. Cutting misinformation reduces risk and helps allocate resources more sensibly.

In terms of fiscal policy, the thesis stressed sound valuation systems to underpin robust property tax collection. In Dubai, property tax leakage undermines fiscal sustainability, depriving the government of significant potential revenue sources. Most critical is the failure to tax value uplift or 'unearned increments' related to major infrastructure.

The main environmental contributions of the thesis were indirect but vital for sustainable resource allocation. The thesis noted the critical importance of site baseline analysis to understand the environmental and heritage situation before any major development. It noted the need for urban development projects to reflect local place character and to take account of local concerns. Socially, the thesis highlighted the importance of social structure in identifying submarkets. It also noted the need to nurture or retain metacognition talent. In a completive global market, UAE service industries rely on a well-educated workforce. Policy makers need to reflect on the implications for education and immigration.

Overall then, the thesis made many useful contributions which illustrate how valuation influences planning, urban form, policy, technology, society and the environment. A reformed Emirati valuation system should help prevent waste and poorly-planned development and hence reduce the multiple and increasingly important environmental pressures on the Emirates (air quality, hydrological, technological, demographic and climatic). In short, a fine-tuned RVS in conjunction with a planning policy reform should encourage more sustainable development.

9.4 Research limitations

There were two main limitations to the research. The first relates to the Chapter 5 data exploration where the full use of the transaction data was not possible, due to lack of housing quality attribute data. The separation of transaction prices from the market valuations also limited the scope of the statistical analysis. These limitations meant that it was not possible to correlate valuations with actual transaction prices and also restricted the usefulness of hedonic modelling to check on valuation reasonableness. The second limitation of the research related to the FGM which was not conducted in an ideal venue not was the chair independent. There are several limitations to the research which are discussed in sequential order. First, the desktop review provided limited access to Dubai real estate market. For the embedded research, it was difficult to talk openly with people who were worried that the data might not be confidential. To obtain approval from top management to access archival transaction data proved difficult. Using the DLD systems was restricted so the researcher could not conduct independent checks. DLD could not be matched so that it was impossible to be 100% sure that a valuation aligned with a market appraisal (MV). Also, the data included limited quality attributes so that it was impossible to run a robust hedonic regression. For the interviews, a significant limitation was that most of the respondents were DLD officials who do not represent the whole community of system valuers. However, this does reflect current Dubai legislation which limits official involvement. The research did consider weighting responses to increase

the salience of opinions of international firms but decided that the focus was to gain insights or find gaps about the current system, not international best practice despite the fact that these respondents were not impartial. Finally, there were some concerns that the location of the FGM should have an independent chairman and be in an independent location. However, for the pragmatic reasons of bringing together influential participants, the meeting was held in Dubai Real Estate Institute (DREI). One weakness of the research is that it did not include rental agencies like Better Homes or construction firms like Bechtel, Taylor Wimpey, Lang O'Rouke, Multiplex etc.

9.5 Potential areas for further research

There are two significant areas for future research linked to the thesis. The first relates to institutional and other investors in the Dubai housing market to investigate the attractions and issues with investing in the Emirates and the information sources used to for decision making. The second area of research relates to value creation and the link between commercial value and project design.

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Appendices

1.1: Crown Prince decree

1.2: DLD meeting invitations

1.3: RAU ethical approval

3.1: Dubai Land Department Automated Valuation (Hedonic Regression)

4.1: Dubai Land Department Appeal cases

6.1: Interviews questions

6.2: DLD Valuation Certificate

6.3: DLD Valuation request and supporting documents

6.4: Interviews analysis (Excel sheet)

6.5: Emirates Valuation Book

7.1: Focus Group Meeting briefing

7.2: Edited and Coding transcript

7.3: FGM PowerPoint presentation

Appendices

1.1: Crown Prince Decree:

Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancester Library - Coventry University.

1.2: RAU ethical approval

Low Risk Research Ethics Approval

Read this first

You should only use this checklist if you are carrying out a low risk research project through Coventry University: This normally applies to:

- Undergraduate students.
- Taught postgraduate students.
- Members of staff evaluating service-level quality e.g. reviewing course delivery.

The term "project" applies to **all** research projects within Coventry University.

Introduction to research ethics

Respect

One of the important qualities of a good researcher is to respect the people and their opinions that may form part of your research project. This is underlined by expectations from various bodies involved in monitoring higher education in the UK. It is also expected by the society in which we live. There have been a number of recent cases in the Press where confidential data, and indeed both personal financial and clinical data, have been "lost" or misused in some way. People who contribute their views to your research need to feel comfortable about what will happen to the information they give you, especially if your project is looking at an area which is confidential. As a general rule all research data should be treated confidentially and should not be discussed with colleagues, or participants referred to by name or in a demeaning manner.

Respect also implies that you have taken the time to think through the research, to ensure you have good internal and external validity for the questions, and that the information you ask for will fulfil your research objectives. Are you are asking the right people the right questions? It is disrespectful to waste people's time with poorly planned research.

Risk

You need to consider your personal safety during the research project and the safety of any other people involved in it. The ethical approval process is intended to help you identify risks to you and to others. For example, would the research that you are carrying out:

- Endanger you by requiring data to be collected in unsafe places or by giving away personal data about yourself?
- Upset participants with research material that they may find distasteful or which may causes a violent reaction?
- Damage the participants' job prospects by confidential data about them becoming known to others because your research makes it easy for them to be identify or because you accidently leaking information about them?
- Be reported and presented in a way that protects you and your participants from potential criminal or legal action?

Most risks can be minimised by taking sensible precautions. For example, if you are meeting people who you do not already know, you should always do so in a public place and let your Supervisor or a friend know who you are meeting, where you are and when you will return. Similarly, if you need to tell your participants how they can communicate with you, use your University email address, not your personal one. Is there is a risk to the participant in taking part in the research? For example, are you are distracting participants from doing their normal job, when their employer expects them to be doing something more important? You have to limit the risk for the participant, by making sure they will not experience any come back from their employer because they helped you with your project.

It is also not normal practice to post up a questionnaire on the Internet. One reason why this is not a good idea is the fact that you may not know who is replying to your questionnaire, or whether their responses are valid or reliable. Remember, you are **not allowed to send e-mail** requests to staff, students or other people to participate in your research unless they have made a specific request.

Rights

As researchers we need to let those involved in our research understand what is expected of them, their rights including the right to withdraw from the research, and our obligations towards them and towards the data we collect about them. The responsibility for acceptable behaviour in this area lies with you and not with the University. Indeed, it is a disciplinary offence to misuse research data or to fail to abide by the University's Ethics policy.

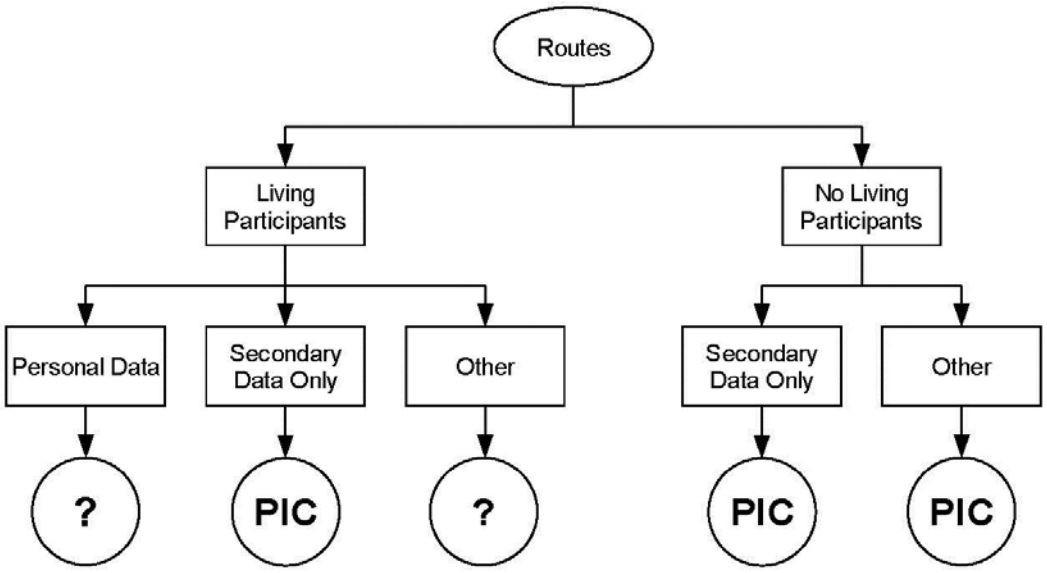
This means that you must have ethical approval **before** you start your research project. If you do not do this, there will be disciplinary consequences for you and the research will be declared invalid. Special additional conditions may also apply to research carried out in your Faculty so check that you have followed those too.

Routes

The questions in the following checklist offers a guided pathway through the various issues surrounding your research that need to be addressed and researcher behaviour that would be expected from all of our students and staff. You will need to complete the checklist and receive approval **before** you begin to collect any data. It is not acceptable to produce it after you have collected your data or finished your project and you will be penalised if this occurs.

No living participants

The following diagram gives an overview of the routes through ethical approval. If there are no living participants involved in the research, then you are likely to be able to complete the Low Risk Research Ethics Approval Checklist and use **Principal Investigator Certification** (PIC) to state that there is no need for ethical approval. You still need to go through the checklist and answer the questions but the likely outcome is you can use the PIC declaration.



Living participants

Most projects, especially at undergraduate level, will involve using data that has already been collected which is called secondary data. In these cases, completion of the questionnaire is very straightforward.

Some projects might use a survey to collect anonymous data, i.e. data that cannot be traced back to named or identified individuals either from other students or from other groups of people. In this case, a **participant information leaflet** about the project needs to be prepared and offered to all participants in the study even though you will not take their contact details. The participant information leaflet needs to be pre-approved by the research Supervisor or the Faculty Research Ethics Leader before any data is collected and will need to be included in the dissertation or report. The participant information leaflet should be attached to the low risk ethics checklist.

Some projects might ask individuals to be interviewed to provide data. In these cases, the interviewees will need to provide what is called "informed consent". The researcher will need to make sure that all interviewees have completed **informed consent forms** before being interviewed and they will also need to be given participant information leaflets at the time when informed consent is requested. The informed consent for should be attached to the low risk ethics checklist.

This means more work because these two leaflets have to be drafted and approved by research Supervisors or the Faculty Research Leader before any contact is made and therefore before any data is collected so this method of research requires a long development time and very good advance planning. Data collected in this way has to be stored securely. Again, a conversation with your Supervisor or the Faculty Research Leader may be necessary to cover this. It also needs to be destroyed after the research is completed and again this will need to be confirmed. You will need to convince interviewees that the information that they share with you will be treated confidentially and show to us that this is the case. Finally, the findings from research conducted in this way are normally shared with research participants in two ways:

- Interview transcripts may be sent to interviewees for confirmation.
- Summary findings of the research project should be offered to all participants.

Participant who can't give informed consent

It is not normal practice to collect data for undergraduate or master level research projects from children under 18 years of age, the mentally ill or participants under medical supervision. There are special regulations and legal requirements about these groups which must be followed. If you are planning to use any of these groups as a source of data in your research then this must be specially cleared with your Supervisor and with your Faculty as participants from these groups cannot themselves give informed consent.)

Record keeping

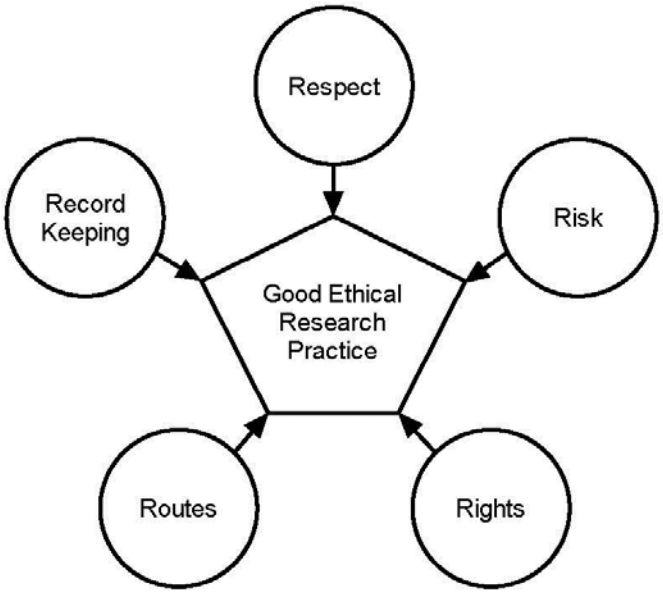
It is also not acceptable to record interviews without getting prior permission or consent from the interviewees (so this might form part of your informed consent form). You also need to provide details of how the information collected, whether it is confidential or not, how it will be used, stored and the disposal method. It is not a good idea to interview without seeking the prior informed consent of participants and having evidence of that consent, nor is it good practice to collect data and not "verify" by sending back transcripts of interviews to participants. Finally, the issue about the destruction of the data once the project is completed needs to be clarified.

All of this is intended to protect you. For example, if someone later says that they did not agree to being recorded or suggests that you have leaked confidential information about them. You need to be able to show that you have protected yourself and looked after any material very carefully.

In all cases the survey that will be used and the interview questionnaire or protocol needs to be signed off by Supervisors before they are used. It is also good practice to test them, not least to find out where the problems might be. In addition, when you write up your research, you can talk about the testing process as a demonstration of good practice, which for students may count towards your marks.

There are examples of informed consent leaflets and information leaflets on the Registry Research Unit Intranet.

Remember



Frequently Asked Questions

Can I begin work before the project is ethically approved?

No. Primary data collection cannot begin until you have established that your project does not need ethical approval using this checklist or you have received written approval from your Faculty Research Ethics Leader, Chair of the Research Degrees Sub-Committee or University Applied Research Committee.

What will happen if I proceed without approval or falsely self-certify research ethics approval?

Collecting primary data in the absence of ethical approval or falsely self-certifying the level of risk associated with a project will constitute a **disciplinary offence**.

- For **Students** – this means disciplinary action resulting in immediate failure in any module or project associated with the research and potentially dismissal from the University.
- For **Staff** – This means disciplinary action, which may potentially lead to dismissal.

If you do not have ethical approval, the University's insurers will not cover you for legal action or claims for injury. In addition, you may be debarred from membership of some professional or statutory bodies and excluded from applying for some types of employment or research funding opportunities.

What happens if the project changes after approval?

If after receiving ethical approval your project changes such that the information provided in this checklist is no longer accurate, then the ethical approval is automatically suspended. You must re-apply for ethical approval immediately and stop research based on the suspended ethical approval.

What about multi-stage projects?

If you are working on a project which involves multi-stage research, such as a focus group that informs the design of a questionnaire, you need to describe the process and focus on

what you know and the most risky elements. If the focus group radically changes the method you are using then you need to re-apply for the ethical approval.

Is there any help available to complete this checklist?

Guidance can be found in the ethics section of the Registry Research Unit Intranet. You will find documents dealing with specific issues in research ethics and examples of participant information leaflet and informed consent forms.

Further advice is also available from:

- Supervisor (Students)
- Faculty Research Ethics Leader (Staff)

What is Principal Investigator Certification (PIC)?

If you answer **No** to **all** the questions in the low risk ethical approval checklist then it is likely that your project has a low ethical risk. You may sign the Principal Investigator Certification part of the checklist and proceed with your project using good ethical practices. If you are a student, your Supervisor needs to countersign to show they agree with your judgment. They may require some restrictions or changes to your project to reduce the ethical or other risks, which would be recorded on the PIC declaration.

What do I do with the completed checklist?

Students should discuss the checklist as it relates to the project with your Supervisor. Once s/he countersigns the PIC declaration at the end to say that this is a low risk project then you may begin your project. However, you must keep hold of the checklist and associated documents, as you need to bind it in to your final project report.

Staff should complete the checklist. If all your questions have "No" responses, then you need to sign the PIC declaration and you can proceed with your project. If you were unable to answer all the questions with a No, then you need to talk to your Faculty Research Ethics Leader. This may result in changes to your project or research design to maintain it as low risk. If this is the not the case then you may have to complete either seek approval through the Medium-High or NHS-Medical ethical approval routes before begin your project.

If you have any questions about the checklist or the questions on it, please consult your:

- Research Supervisor (Students)
- Faculty Research Ethics Leader (Staff).

Who are the Faculty Research Ethics Leaders?

Check the Registry Research Unit Intranet site for the most up to date list of Faculty Research Ethics Leaders.

Low Risk Research Ethics Approval Checklist

Applicant Details

Name	E-mail
Department	Date
Course	Title of Project

Project Details

Summary of the project in jargon-free language and in not more than 120 words:

- Research Objectives
- Research Design (e.g. Experimental, Desk-based, Theoretical etc)
- Methods of Data Collection

Participants in your research

1. Will the project involve human participants?	Yes	No

If you answered **Yes** to this questions, this may **not** be a low risk project.

- If you are a student, please discuss your project with your Supervisor.
- If you are a member of staff, please discuss your project with your Faculty Research Ethics Leader or use the Medium to High Risk Ethical Approval or NHS or Medical Approval Routes.

Risk to Participants

2. Will the project involve human patients/clients, health professionals, and/or patient (client) data and/or health professional data?	Yes	No
3. Will any invasive physical procedure, including collecting tissue or other samples, be used in the research?	Yes	No
4. Is there a risk of physical discomfort to those taking part?	Yes	No
5. Is there a risk of psychological or emotional distress to those taking part?	Yes	No
6. Is there a risk of challenging the deeply held beliefs of those taking part?	Yes	No
7. Is there a risk that previous, current or proposed criminal or illegal acts will be revealed by those taking part?	Yes	No
8. Will the project involve giving any form of professional, medical or legal advice, either directly or indirectly to those taking part?	Yes	No

If you answered **Yes** to **any** of these questions, this may **not** be a low risk project.

- If you are a student, please discuss your project with your Supervisor.
- If you are a member of staff, please discuss your project with your Faculty Research Ethics Leader or use the Medium to High Risk Ethical Approval or NHS or Medical Approval Routes.

Risk to Researcher

9. Will this project put you or others at risk of physical harm, injury or death?	Yes	No
10. Will project put you or others at risk of abduction, physical, mental or sexual abuse?	Yes	No
11. Will this project involve participating in acts that may cause psychological or emotional distress to you or to others?	Yes	No
12. Will this project involve observing acts which may cause psychological or emotional distress to you or to others?	Yes	No
13. Will this project involve reading about, listening to or viewing materials that may cause psychological or emotional distress to you or to others?	Yes	No
14. Will this project involve you disclosing personal data to the participants other than your name and the University as your contact and e-mail address?	Yes	No
15. Will this project involve you in unsupervised private discussion with people who are not already known to you?	Yes	No
16. Will this project potentially place you in the situation where you may receive unwelcome media attention?	Yes	No
17. Could the topic or results of this project be seen as illegal or attract the attention of the security services or other agencies?	Yes	No
18. Could the topic or results of this project be viewed as controversial by anyone?	Yes	No

If you answered **Yes** to **any** of these questions, this is **not** a low risk project. Please:

- If you are a student, discuss your project with your Supervisor.
- If you are a member of staff, discuss your project with your Faculty Research Ethics Leader or use the Medium to High Risk Ethical Approval route.

Informed Consent of the Participant

19. Are any of the participants under the age of 18?	Yes	No
20. Are any of the participants unable mentally or physically to give consent?	Yes	No
21. Do you intend to observe the activities of individuals or groups without their knowledge and/or informed consent from each participant (or from his or her parent or guardian)?	Yes	No

If you answered **Yes** to **any** of these questions, this may **not** be a low risk project. Please:

- If you are a student, discuss your project with your Supervisor.
- If you are a member of staff, discuss your project with your Faculty Research Ethics Leader or use the Medium to High Risk Ethical Approval route.

Participant Confidentiality and Data Protection

22. Will the project involve collecting data and information from human participants who will be identifiable in the final report?	Yes	No
23. Will information not already in the public domain about specific individuals or institutions be identifiable through data published or otherwise made available?	Yes	No
24. Do you intend to record, photograph or film individuals or groups without their knowledge or informed consent?	Yes	No
25. Do you intend to use the confidential information, knowledge or trade secrets gathered for any purpose other than this research project?	Yes	No

If you answered **Yes** to **any** of these questions, this may **not** be a low risk project:

- If you are a student, discuss your project with your Supervisor.
- If you are a member of staff, discuss your project with your Faculty Research Ethics Leader or use the Medium to High Risk Ethical Approval or NHS or Medical Approval routes.

Gatekeeper Risk

26. Will this project involve collecting data outside University buildings?	Yes	No
27. Do you intend to collect data in shopping centres or other public places?	Yes	No
28. Do you intend to gather data within nurseries, schools or colleges?	Yes	No
29. Do you intend to gather data within National Health Service premises?	Yes	No

If you answered **Yes** to **any** of these questions, this is **not** a low risk project. Please:

- If you are a student, discuss your project with your Supervisor.
- If you are a member of staff, discuss your project with your Faculty Research Ethics Leader or use the Medium to High Risk Ethical Approval or NHS or Medical Approval routes.

Other Ethical Issues

30. Is there any other risk or issue not covered above that may pose a risk to you or any of the participants?	Yes	No
31. Will any activity associated with this project put you or the participants at an ethical, moral or legal risk?	Yes	No

If you answered **Yes** to these questions, this may **not** be a low risk project. Please:

- If you are a student, discuss your project with your Supervisor.
- If you are a member of staff, discuss your project with your Faculty Research Ethics Leader.

Principal Investigator Certification

If you answered **No** to **all** of the above questions, then you have described a low risk project. Please complete the following declaration to certify your project and keep a copy for your record as you may be asked for this at any time.

Agreed restrictions to project to allow Principal Investigator Certification

Please identify any restrictions to the project, agreed with your Supervisor or Faculty Research Ethics Leader to allow you to sign the Principal Investigator Certification declaration.

Participant Information Leaflet attached.
Informed Consent Forms attached.
Risk Assessment Form attached.

Principal Investigator's Declaration

Please ensure that you:

- Tick all the boxes below and sign this checklist.
- Students must get their Supervisor to countersign this declaration.

I believe that this project **does not require research ethics approval**. I have completed the checklist and kept a copy for my own records. I realise I may be asked to provide a copy of this checklist at any time.	
I confirm that I have answered all relevant questions in this checklist honestly.	
I confirm that I will carry out the project in the ways described in this checklist. I will immediately suspend research and request a new ethical approval if the project subsequently changes the information I have given in this checklist.	

Signatures

If you or your supervisor do not have electronic signatures, please type your name in the signature space. An email sent from the Supervisor's University inbox will be accepted as having been signed electronically.

Principal Investigator

Signed ..... (Principal Investigator or Student)

Date .....

Students storing this checklist electronically must append to it an email from your Supervisor confirming that they are prepared to make the declaration above and to countersign this checklist. This-email will be taken as an electronic countersignature.

Student's Supervisor

Countersigned ..... (Supervisor)

Date .....

I have read this checklist and confirm that it covers all the ethical issues raised by this project fully and frankly. I also confirm that these issues have been discussed with the student and will continue to be reviewed in the course of supervision.

3.1: Dubai Land Department Automated Valuation (Hedonic Regression)

3.1: Dubai Land Department Automated Valuation (Hedonic Regression)

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Some materials have been removed due to 3rd party copyright. The unabridged version can be viewed in Lancester Library - Coventry University.

File Edit View Favorites Tools Help

3.1: Dubai Land Department Automated Valuation (Hedonic Regression)

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4.1: Dubai Land Department Appeal cases

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دائرة الأراضي والأملاك
Land Department

شهادة تقييم

VALUATION CERTIFICATE

6.1: Interviews questions

Investigating the UAE residential valuation system
UAE practitioner interviews

About the Researcher

Name: Ebraheim Ali Lahbash

Address: Royal Agricultural University, Stroud Road, Cirencester, Gloucestershire, GL76JS, United Kingdom

Email: ebraheimlahbash@gmail.com

Website: http://www.rau.ac.uk/academic-school/relm

AIM:

The aim of this research is to investigate the UAE valuation system by consulting with its senior stakeholders. Its focus is on valuation standards, trust and institutional capabilities.

This questionnaire is targeted at senior UAE managers, officials, developers and valuation practitioners involved with real estate investment, finance, development, agency and management. As a senior player in the valuation system, your informed views are critical to the successful outcome of this project. If requested, we will provide you with a brief overview of the preliminary results of the research. We estimate that the interview should take no more than one hour.

INSTRUCTIONS:

- Please answer questions as they relate to your own personal experience.
- If you are unclear about any question, please ask the interviewer for clarification
- Where you are invited to comment please use a separate sheet of paper if this is more convenient.

CONFIDENTIALITY:

All information you provide is treated in strict confidence. Anonymity is assured by secure storage and deletion of respondent names from questionnaires during analysis. The results will only be published in aggregated form and will not identify particular respondents.

Thank you for your time and effort in helping us.

Ethical consent:

1. I confirm that I have read and understand the information sheet attached for the above research study.

2. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily

3. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my legal rights being affected.

4. I understand that relevant sections of any of notes and data collected during this study may be looked at by responsible individuals from The Royal Agricultural University, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my information.

5. I agree to take part in the above research study

I have read and understand the above and consent to participate in this research study. My signature below is not a waiver of any legal rights. Furthermore, I understand that I will be able to keep a copy of the informed consent form for my records.

Respondent	Signature	Date
Name of Interviewer /Researcher	Signature	Date

Organization				
Participant name			Signature	
Job function				
Professional qualification	Valuation experience	0-1 years ☐	1-5 ☐	➢ 5 years ☐
Interviewed by			Signature	
Date				

Q1. Could you please tell me something about the current state of the Dubai residential market?

Q2. What do you understand by the Residential Valuation System in Dubai (RSV)?

Q3. In your organization, when are valuations required and for what purposes?

Q4. For each of the valuation purposes you just mentioned, could you please tell me something about the method(s) of valuation is practiced?

Q5. In general, how confident are you in Residential Valuation Accuracy?

Very worried	Concerned	Fairly confident	Confident	Very confident
☐	☐	☐	☐	☐

Q6. In your opinion, what are the most critical factors influencing the reliability of the UAE residential valuation system?

Q7.Please describe any specific residential valuation issues concern you?

Q8. In your work, how relevant are valuation standards?

Largely irrelevant	Unimportant	Quite important	Very important	Critical
☐	☐	☐	☐	☐

Q9. Thinking about your department, how frequently are issues related to valuation standards discussed?

Never	Annually	Monthly	Weekly	Daily
☐	☐	☐	☐	☐

Q10. In your work, to what extent is technology such as Geographic Information Systems or statistical mass appraisal software important for valuation?

Largely irrelevant	Unimportant	Quite important	Very important	Critical
☐	☐	☐	☐	☐

Q11. For valuations, what qualifications do you consider important?

Q12. Talking about valuations conducted in your work, could you outline how difficult or complex cases are handled??

Q13.Could you please explain how your department monitors and checks valuation accuracy?

Q14. How often does your department coordinate / meet regularly with other external institutions?

Never	Annually	Monthly	Weekly	Daily
☐	☐	☐	☐	☐

Q15. Thinking about recent meetings with external real estate players, to what extent are they confidant in UAE valuations generally?

Very worried	Concerned	Fairly confident	Confident	Very confident
☐	☐	☐	☐	☐

Q16. In your view, how will does the valuation system handle:

a) The fast pace of change in locals

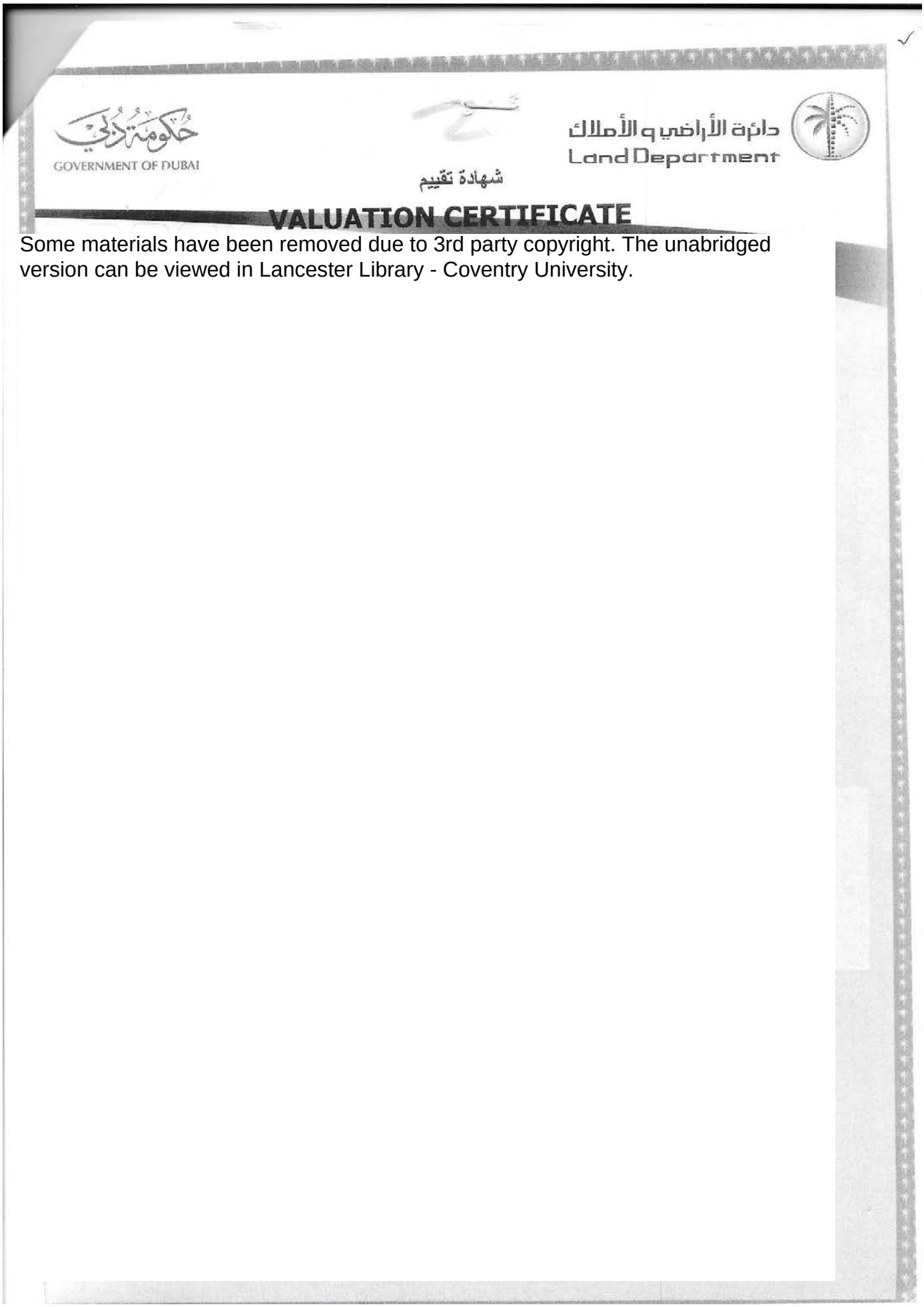
Very well	Quite well	Reasonably	Badly	Very badly
☐	☐	☐	☐	☐

b) Fluctuating sentiment in Dubai?

Very well	Quite well	Reasonably	Badly	Very badly
☐	☐	☐	☐	☐

Q17. Given your experience, would you make any recommendations to improve the RVS?

6.2: DLD Valuation Certificate



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6.3: DLD Valuation request and supporting documents

حكومة دبي
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دائرة الأراضي والأملاك
Land Department

شهادة تقييم

VALUATION CERTIFICATE

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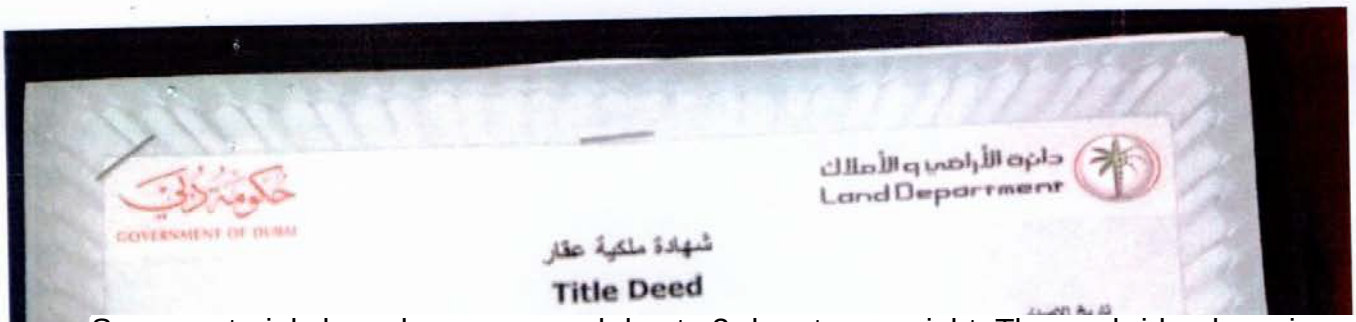
حكومة دبي
GOVERNMENT OF DUBAI

دائرة الأراضي و الأملاك
Land Department

Valuation Request (VR1) **طلب تقييم (VR1)**



6.4: Interviews analysis (Excel sheet)

Appendix 6: LINKED ANALYSIS

Principle	Concept	Indicator	Very poor	Weak	OK	Good	Excellent	Score		Check / (xRef)
			1	2	3	4	5			
P1	Valuations reasonable	Macro-examination(E)			NA					
P1	Valuations reasonable	Qualitative examination (E)			NA					
P1	Valuations reasonable	Statistical submarket examination (E)			NA					
P1	Valuations reasonable	Statistical submarket examination (E)			NA					
P1	Valuations reasonable	Statistical submarket examination (E)			NA					
P1	Valuations reasonable	Statistical submarket examination (E)			NA					
P1	Valuations reasonable	Output reasonable(E)			3			3.00		
P1	Valuations reasonable	Output reasonable(E)			3			3.00		
P1	**Valuations reasonable**	Output reasonable			**3**			**3.00**	OK	
P2	Intelligence systems (IS)	Data governance (E)	1					1.00		
P2	Intelligence systems (IS)	Data governance Q2		2				2.00		
P2 (g)	Intelligence systems (IS)	Data governance AVERAGE						1.50		
P2 (st)	Intelligence systems (IS)	Source transparency Q8		2				2		
P2	Intelligence systems (IS)	Rich information field Q1		2				2.00		
P2	Intelligence systems (IS)	Rich information field Q10	11	0	2	2	14	3.28		29
P2	Intelligence systems (IS)	Rich information field Q17a		2				2.00		
P2 (i)	Intelligence systems (IS)	Rich information field AVERAGE						2.43		
P2	Intelligence systems (IS)	Systematic updates Q1		2				2.00		
P2	Intelligence systems (IS)	Systematic updates Q17b	0	0	17	5	7	3.66		29
P2	Intelligence systems (IS)	Systematic updates Q17c	0	0	25	2	2	3.21		29
P2 (u)	Intelligence systems (IS)	Systematic updates AVERAGE						2.95		
P2	Intelligence systems (IS)	Technical analytics(E)		2				2.00		
P2	Intelligence systems (IS)	Technical analytics Q10	11	0	2	2	14	3.28		29
P2 (t)	Intelligence systems (IS)	Technical analytics AVERAGE						2.64		
P2	**Intelligence systems (IS)**	Intelligence systems (IS) AVERAGE						**2.30**	FAIL	6.4.4.3 P2 Conclusion
P3	Institutional capabilities (C)	Governance(E)	1					1.00		
P3	Institutional capabilities (C)	Governance Q2		2				2.00		
P3	Institutional capabilities (C)	Governance Q13	6	12	6	5	3	2.59		32
P3 (g)	Institutional capabilities (C)	Governance AVERAGE						1.86		
P3	Institutional capabilities (C)	Professionals (E)		2				2.00		
P3	Institutional capabilities (C)	Professionals Q4						3.93		
P3	Institutional capabilities (C)	Professionals Q11	29	9	20	4	6	2.25		68
P3 (p)	Institutional capabilities (C)	Professionals AVERAGE						2.73		
P3	Institutional capabilities (C)	Administrative competence Q3						3.50		
P3	Institutional capabilities (C)	Administrative competence Q4						3.92		
P3	Institutional capabilities (C)	Administrative competence Q8						2.00		
P3	Institutional capabilities (C)	Administrative competence Q13						2.59		
P3 (c)	Institutional capabilities (C)	Administrative competence AVERAGE						3.01		
P3	Institutional capabilities (C)	Supportive technologies (adaptive) (E)			3			3.00		
P3	Institutional capabilities (C)	Supportive technologies (adaptive) Q10						3.28		
P3 (t)	Institutional capabilities (C)	Supportive technologies (adaptive) AVERAGE						3.14		
P3 (mc)	Institutional capabilities (C)	Meta-cognition Q12						3.96		
P3	**Institutional capabilities (C)**	Institutional capabilities (C) AVERAGE						**2.94**	FAIL	
P4	Trust (T)	Collaboration Q14	4	7	8	4	5	2.96		28
P4	Trust (T)	Users trust valuations Q5	0	0	3	25	4	4.10		32
P4	Trust (T)	Users trust valuations Q15	0	1	4	21	3	3.90		29
p4	Trust (T)	Users trust valuations AVERAGE						4.00		
P4	Trust (T)	Users trust system Q16	0	2	8	17	2	3.66		29
P4	**Trust (T)**	Trust (T) AVERAGE						**3.54**	OK	
P5	Standards salience (S)	Valuation standards disseminated Q3						3.50		
P5	Standards salience (S)	Valuation standards disseminated Q8						2.00		
P5	Standards salience (S)	Valuation standards disseminated AVERAGE						2.75		
P5	Standards salience (S)	Discussed Q9	8	7	6	6	2	2.55		29
P5	Standards salience (S)	Implemented Q4						3.93		
P5	Standards salience (S)	Implemented Q8						2.00		
P5	Standards salience (S)	Implemented AVERAGE						2.96		
P5	**Standards salience (S)**	Standards salience (S) AVERAGE						**2.76**	FAIL	

Q

	Largely Irreleva	Unimportan	uite importa	rtaery Importan	Critical
10	11	0	2	2	14

	Very well	Quite well	Reasonably	Badly	Very badly
17b	7	5	17	0	0
17c	2	2	25	0	0

	N/A	QA	Review	DLD	Audit
	6	5	3	12	6
Q13	6	12	6	5	3

Q4			RICS	Experience	Qualification	DREI	Technical
Purpose	mes mentioned		6	29	20	9	4
Comparison	13		Q11 29	9	20	4	6
Depreciated Cost	1						
DCF	2						
DRC	4						
Residual	3						
N/A	12	0.2					
Investment	1						
Income	10						
Profit	1						
Cost	6						
Appraisal Committee	3						
	56	3.9					

	N/A	Major project mal	global rep mgmt/	dose uniquene	TOTAL
	11	7	2	10	23	53
Q12	3.96					

6.5: Emirates Valuation Book

كتاب الإمارات لمعايير التقييم

Emirates Book – Valuation Standards (EBVS)

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7.1: Focus Group Meeting briefing

Royal Agricultural University
Cirencester

UAE Residential Valuation Systems

Focus Group Meeting

March 2017

School of Real Estate and Land Management
The Future of Real Estate Education

Project Context

The overall goal of this evaluation is to provide Dubai Land Department with insights for a comprehensive assessment of the Residential Valuation System in the UAE :

(1)an evidence based evaluation of preliminary thesis results to identify possible gaps and to produce useful feedback;

(2)a reliable scenario for the understanding of the future development and follow-up of the project, both in terms of expected impacts and opportunities.

School of Real Estate and Land Management
The Future of Real Estate Education

Purpose of the Focus Group Meeting

This meeting aims to further discuss the preliminary findings and engage with key stakeholders

It allows further insights into stakeholders' shared perception and expectations about valuation systems in Dubai

Explores potential collaboration for the future

Theme A: Vision and Challenges for RVS

The consensus gathered from the interviews suggest that there are areas for RVS improvement

Points for discussion:

- Does DLD adequately support industry?
- **Is the current RVS system fit for purpose?**
- What are the current challenges?
- How can the system be improved?

School of Real Estate and Land Management
The Future of Real Estate Education

Theme 1: Valuations

The research found that despite a lot of market uncertainty, DLD valuations were reasonable.

Points for discussion:

- In your experience, what are the challenges facing valuers in Dubai?
- **Do you have confidence in DLD valuations?**
- Are there any issues which concern you?

Theme 2: Information systems

Valuers depend on quality and up to date market or other information to make assessments.

Points for discussion:

- Do you get access to adequate property information?
- **Could DLD be more supportive and provide more information to stakeholders?**
- What are the main benefits of better information systems for businesses and the projects?

Theme 3: Capabilities

The RVS relies on institutional capabilities related to governance, HR and systems.

Points for discussion:

- What type of support should DLD provide to ensure effective valuations?
- What are the main constraints limiting RVS performance?
- **How can your organization's capabilities be improved?**
- What are the emerging best practices from the wider national and international experience?

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Theme 4: Trust

Trust in valuations and between government and private sector improves the RVS

Points for discussion:

- What are the most important constraints undermining trust in valuation system?
- **To what extent do you trust the RVS in general?**
- What lessons can be learnt from failed projects or inflated valuations?
- What extra resources builds trust in valuations of complex projects?

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Theme 5:
Standards salience

The salience (prominence) of valuation standards is important for a robust RVS

Points for discussion:

- In your experience, how important are valuation standards?
- **How often do your consult valuation standards in practice?**
- How should UAE valuation standards differ from international ones?
- What is impact of Arabic culture?

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THNAK YOU FOR YOUR VALUABLE CONTRIBUTION

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7.2: Edited and Coding transcript

Moderated FGM transcript and coding

The moderated FGM transcript eliminated all pleasantries and 'noise' from the FGM such as researcher and supervisor introductions to focus on the key valuation messages.

C

Emirates Book, TeGoVA and RICS standards [STD]
Multiple valuation purposes and interaction between commercial and residential [CPLEX]
Market towards a bit more stability and maturity [EVOL]

P

Freehold market it's a little over a decade old. Many improvements, and the market has moved to mature levels [EVOL]. Lot of regulations [STD]. Prior to 2008, 2007 freehold property was, you know, with the developers [EVOL]. Everything came to the land department and now we have proper titles in terms of [DEEDS]. We have specific transactions taking place [TRANS]
Independent valuators [INDEP]. We know that a specific property in the specific locality, for example, the marina, in a specific building, depending on what the location is, what the floor is, so we actually [do know] what the market value of that property is [DATA]
Transactions captured in the DLD system evaluations [DATA]
Independent valuators [INDEP]
Technology improvements [TECH]

R

Yeah, majority comparable methods, and there's different qualities of evidence within comparable methods [COMPARISON]
Obviously, the best [DATA] is actual transactions from a reputable source, such as DLD [TRANS]. Major problems hearsay information [INFO]

Position of the unit affects the value a lot, so you could have one building and obviously one could have a Burj Khalifa view, one could have a community or road view, and you could be in the same building but the variance in value is huge between those two units [DATA]
So, I think that, you know, we just need more information, as a valuer [INFO]

C

Title deed, legal systems [DEEDS]
Dubai, as a market, has matured a lot since 2002 when freehold properties started to be sold, and there is a series of laws [EVOL]. Wherever there is a title deed issued, especially for freehold, we have a lot of data [DATA]

Y

Land Department has really come on a long way in the past eight to 12 years [EVOL], and a lot of it is really around the infrastructure, rules and regulations that have been implemented. I mean, laws like [STD], Resolution 37, we're aware of specifically on valuations,

C

We have the [MKTVAL], so there is [FAIRVAL], okay, which is an accounting term.
Price is what you pay for it. It doesn't mean it's worth this much or it's valued at this much. And then you have to decide [VALBASE].

P

No, actually, what I meant was the [MKTVAL] of the property, not the [FAIRVAL].
We don't see the [VALMETH] in DLD only I see is a piece of paper with a value on it. I don't know how they've come to that value [VALMETH], and I think that would be a question for me. I can [TRUST] something I understand, and I understand how they've approached it, but sometimes it's difficult if I'm just getting one piece of paper with a figure on it that says this square-feet, this is the value.

C

Most popular and most resilient for residential is the comparable approach [COMPARISON]. So, I know that you guys will want to have access to accurate sales data to be able to give accurate valuation reports.
Dubai Marina, outliers, based on the height and the view, and a lot of variables [DATA] as part of that, effect that certain location. The second thing which we mentioned about - do we [TRUST] the valuation?

Y

Generally, the valuations from the DLD are well-respected [TRUST], although clearly the calculations [aren't done clearly [VALMETH]

C

There's a [VALREPORT] and a [VALCERT]. We only offer a certificate. We don't do reporting. The main reason for that is we offer it as – it's like a receipt.
Historically, we haven't needed to provide reports We mainly act as an Government internal valuer

P

Area, price [INDEX], which renewed every year, or every six months, valuators, [INDEP]endent valuators, consider it index,

C

I've always resisted competing with the private sector.

R

I think it's difficult because, as a [bank] valuer, you're shown often the DLD valuation to say this is the valuation we've got – why is your valuation different? And then there's obviously a [DISCUSS]ion to be had – not always, but sometimes, on some occasions.

Y

Five methodologies [VALMETH] valuation surveyors, internationally. The primary methodology, as a colleague here said, is the comparable method. [COMPARISON] However, the comparable method is only really relevant when looking at a very specific asset class or a niche of an asset class. So, for example, if we were asked – and JLL does not provide this service, we do not provide necessarily unit valuations on an apartment or a villa. We generally deal with other asset classes or larger assets within the retail sector. We generally use the comparable method. There are a few examples where we would use other methodologies, but if we were looking at an apartment or a villa, the first methodology that any valuer would use would be the comparable method.

The second method would be an a multiplier of an [INCOME] stream, or a [DCF], [no listing] investment approaches. Those approaches are generally used for any property which would be purchased by an investor e.g. Office building, it mall,

The third type of methodology is the [PROFITS] which is really a methodology that is used where the business operation is intrinsic to the property. An example of that could be a petrol station. It could be a [dry dock] possibly.

The final methodology would be the [COST] as per the [RICS] [STD], is a surrogate to [MKTVAL], because it's not really a reflection, generally, of where a property would transact within the market. So, the terminology that is used within the Valuation Standards is a surrogate, and that's really where we assess the [COST] to rebuild the property, the subject property that is trying to be assessed or valued, in relation to the construction. Within that methodology, we may allow for some depreciation due to the depreciation factors that are set out – obsolescence, age being the obvious ones.

Y

For specifically residential. So, I think the most common approach that I'm aware of, and my remit within JLL as well as the valuation team, is within the Middle East and Africa, and we deal with the residential asset class within that region. It's the comparable method [COMPARISON] if we are looking on the few occasions-

OS

For residential building we also use the [INCOME] approach,

But the [COMPARISON] method is intrinsic on the skill and the knowledge of the valuer – this is very important. How much experience does that valuer have? Because you can't compare a building you've never

seen or you don't know much about with another building. The more you've seen, you know, the more accurate you should be in your valuations, in my opinion.

C

Mainly for residential, we use comparable, DLD and the private sector,

So, just to rephrase it in a better way, you would like to have maybe competencies [CPET] based testing for the valuers that are licensed by the State?

R

Yeah, because, also, again, you know, different valuers are specialising in different asset classes.

OS

Yeah, there should be competency-based [COMPETency] exams.

C: Exactly, exactly, exactly, so competency-based assessment of... for licensing. A third point?

F

If I may comment a bit, and it's really important we have the bankers here, when you want to grant a loan [for a] [MORTGAGE], you have your own requirements, in terms of valuation. What is the core requirement that you have and to what... what kind of valuer [?]?

OS

I will let [?] Be the expert because he is the Head of Home Finance. We apply a couple of methods, [?] But they are basically that [they're applied].

I think what the bank looks at, number one, obviously, what the market value [MKTVAL] of the property is which the valuator has given; and then, what are the expected rentals out of the property; thirdly, what would be the value of the fire sale [FIRESALE] of that property, in case of foreclosure – that's also very important. Secondary is the [QUALITY] of the property, which is where it's located [LOCATION], etc. "under-construction" property milestones where the developer is actually developing, very important, right; are those milestones approved by the regulatory authority, which is very important, otherwise we do not do that [PROJECT]; Expected rentals from that "under-construction" property [MILESTONE]; when it's going to get completed; and what would be the estimated price of that property once that is completed, versus "under-construction" as "under-construction" property is close to completion or close to handover, the prices move up for that property. Is the [FAIRVAL], the rentals, and the [FIRESALE] of that property?

The final decision, usually it will happen based on the creditworthiness of the individual that is applying for [CREDIT]. Yeah. So, banks, they take both sides. So, I think one of the challenges that I think sometimes we face in the banking, like a valuation of that particular property, let's say. So, here, some banks, they have their internal evaluation that sometimes they apply, and some other banks, they have, you know, affiliated with some other consultancy company that they take into consideration their evaluation. So, it's a combination of so many, you know...

F

Kuala Lumpur artificial market because the prices were high and, at the same time, [an over-stock] of property [BUBBLE]. Something wasn't working properly [laughing] [SKEPT] so

Banks sometimes can be overgenerous with valuation

OS

Mortgage regulation Central Bank of the UAE, [INDEP]endent evaluator before extend finance

Internal index, indices, monthly evaluations and sales transactions probably from the DLD websites and sites like… on things like [READIN] etc.

Maximum [LTV], which is Finance to Value, or Loan to Value

OS

So, for UAE nationals, first property is at 80%, and for ex-patriots, first property is a maximum FTV of 75%. Subsequent properties is at 60%, not more than that. So, banks have a good cushion

Customer has the skin in the game [LTV]. Prior to 2008, you know, banks and financial institutions, offered 90%, 95% FTV

Today, there is an actually 30%, 35%, skin in the game, so… Market has actually matured [EVOL]. There's also an [INDEP]endent panel of valuers, so you can't guarantee who's going to get the work. The customer can't say "I want to give it to Collier's" or "I want to give it to Chesterton". You know, it's just given randomly to the-

C

So, research found that the valuation OK [OUTPUT]

OS

Yeah. So, the question was regarding the [DATA] I think. I think we have a different type of [DATA] in the Land Department. Some of them are very accurate and good. Some of them are a little bit [SKEPT]... because it depends, you know. Most of the building which is being built [are] with the Municipality approval and permits. Maybe some of them did not submit [DATA], so that's why we have some work to do in the Government and [Government groups] to implement our [DATA].

Whole of the DLD data to [RERA]

M

Valuation regulation has been transferred, after the law, to [RERA], so it's no longer the requirement of the Real Estate Appraisal Centre, which I used to have to manage that. So, that's gone to the Licensing Department, which is headed by Mr Ali Abdulla, and it's not easy, and now, you know, after a new law is introduced, it takes many months and many years to get a system running. I mean, you were in charge of the brokers many years ago, and it took a long time to do, and it's not easy because the market has to adapt. It's one thing for [RERA] to put in some laws and systems, but it's another for the market to understand it and to use it, [STDS] so I just

want to make that point. So, it's not just a matter of switching a switch and everyone will be re-licensed and registered. They have a difficult job. So, I just wanted to mention that about the Licensing Department, so that's number one.

At the time where the agreement was signed between [RERA] and [REDEN], we did not give them all of the [DATA], no. They are a website that provided data to the... to the market, and we chose to give them access to our data. It remains our data and we own it 100% and we can do whatever we want with our [DATA] because we are the government agency that does the registration [?]. So, for a number of years, that relationship existed and they provided services based on our data, and after a number of years, that relationship ceased. So, that's all I want to say about that. That's just one source of data.

Y

DLD data or [REDIN] data, compared to your own data? Which one do you actually [TRUST]? I think we [TRUST] all of them by varying degrees, to answer the point concisely. So, which one, which one do we [TRUST], i've answered, but the first question is what datasets do we have?

Yeah. We have an internal dataset [DBASE]. Naturally, because of the number of valuations that we do, we're privy to a lot of information. That information is kept confidential and internal to JLL [INFOASYM], but it's information that we can then use to form a view or an opinion about, so, data that we naturally get through our work. Second, the DLD data, the DLD has a website and transaction data is put on that website and we do have regard [to it]. Previously, the private company that was mentioned, em, I believe also had access to the DLD data, and that would also be relied upon. Although, in... I think in most instances, it's reasonable to say that we don't have the specifics that we require [INTEGRITY], in my view, it does provide us with a general trend and we can start to do some statistical analysis to it. You can very clearly see when you have, let's say, 50 transactions from this database, you can very clearly see, through our general knowledge and [UNDERSTANDING] of the market, the transactions that appear to be market-related and the ones that appear to be [OUTLIERS], and you can very clearly plot it on a graph. I think there are also transactions that may be [not only not [ARMSLENGTH] but also possibly registered [MORTGAGES], and I think, in our view and in our [EXPERIENCE], we can normally identify those. So, it does provide a good trend [INDEX], and then it's up to the valuer to use his... his other [DBASE] and also investigate – have [DISCUSS]ion with actors within the market, property actors, to form an opinion.

OS

In Dubai, banks are good valuers as well as the DLD] [TRUST]. [The way though... what] the customers normally will do, what I understand, they will take this valuation from the DLD and then they will go to a private valuer, approved valuer, [CHECK] so, whichever is the highest, they will submit that. I [?] Is that they should select the approved valuer, but in practice, whatever they are [doing], they are taking, for example, a valuer within their [CERTIFIED] list, they'll accept it. We had a big problem with that in 2009 when we started because they should not shop for valuations. They should not be involved in valuations. They should not know what the valuation is, and they should not even talk about valuations. When a customer or a buyer goes to the bank, it's these gentlemen's role to instruct the appropriate valuer, based on the [COMPETencies] which have been set out and which we agreed to use, and to make the competencies tougher even, and then the bank will

then chose the valuer that satisfies the bank's risk appetite for the loan and satisfies the legal requirement based on the laws and the systems in place in each jurisdiction. In Dubai, it's managed through my colleague, Mr [Assel]. So, they should not go to DLD and JLL or whatever, Mr XYZ working in [a free zone] and getting [VALBASE] on the fee he is getting, and that's [sufficient]. This is completely [?].

OS

And that's why really we had the big problem in 2008 and 2009. I would be shocked to hear that banks are still allowing customers to submit [CONFLICT] valuations.

Commercial side more...not residential, they can't do it, but commercial side is more of a worry.

Used to, [earlier]. Even now, see, since the inception of freehold, I – so, I was with [?] For about 10 years, I [EVOL]. But I mean, we, banks, generally, are quite stringent when it comes to valuations because, again, it's a [RISK] – the bank needs to know the proper valuated price of the property, and then only they give their finance. So, I wouldn't... not tend to agree with that comment that bank... customers goes to a valuator, if it's approved... No, the bank will never accept it. Our bank will never accept it.

Previously. [But just a feature of that now], most of the banks, they have their [own division], Valuation Division [INDEP], like [inaudible].

[Talking at once] [SKEPT]

created their own division, Valuation Division, just to make sure about-

...evaluators. So, the objective of these engineers is – so, for example, it depends on the product which [is being catered to] the market. So, for example, you're doing construction finance, right? If you're doing construction finance, it's a [MILESTONE]-driven [PROJECT], right? Let's say he wants to build a villa. If will take two or three years to build that villa, for example, so they're milestone-driven.

I would add, valuation committees [are there in each], valuation [can be there], [their own people are there], but [?] Valuation, they cannot do. [?] Valuation should come from DLD or the approved valuer. Then, every two years, every two years, [as per this instruction], we have to [UPDATE] that valuation. [Productive] valuation, some [?] Would approve value at DLD every two years, but in case of very high-net-worth [we] do as well, I know the family, we know the value of relationship, [high-net?], then the valuation can be [?] For the next valuation. But the initial valuation should come from approved valuer at DLD.

And in fact, one more point, sorry, one small point is that, you know, it depends on the [PROJECT]. Sometimes, the bank – let's say, for example, a valuation comes in, and because we do, let's say, we do about 200 million a month, for example, you know, we're one of the top three lenders in the market today, so we know that competitors [are all there], and [if they see] that in case an evaluation is slightly higher, it could be because of the property facing the sea or whatever the thing is, we go in for a second valuation, and then we do not take the higher. If there is a difference, we will either take the average of both valuations, which is actually the best thing to do.

Actually, just to close this, without going into too much detail, the valuation is an opinion.

Subjective.It's an opinion of the valuer, whether he's an engineer – I saw Youcef cringing, you know – or it's a... it's a... let's say a registered valuer with the [RICS] or it's someone operating out of his [?], okay, it's an opinion. This is what they think that it's worth. It's not a certification or an insurance or solid data, like a transaction – this villa sold for 3.2 million, and I might value it at 3.5, you know, because i've got [DATA] that

tells me that, in the next three months, something is going to happen in that area which would increase demand. A hundred new flats will be handed over in the next two weeks and people will come in, or [?] Has just announced a big Carrefour or something. So, the data is 3.2, my opinion is 3.5, and I will fight for it, but that's not a... it's not a... like evidence you can say that, you know, this is... it's 3.5. No. 3.5 is an opinion.
But you could also say that valuation is at a specific point in time [TIME], so can you take into account the fact that more will be built [DEVT] Because maybe it won't be build – you can't...

C

Yeah, but it has to be – who is building it and who announced it? If we say [?]. Usually when they announce, they get it done. If it's, let's say, Neptune Star Freehold, these are developers doing a rotating tower in the middle of the sea, then I think no. But just to, guys, just to close this point before we let you off on your break, should we take a few points maybe for our academic friends on how we can be more supportive? So, just maybe two points, just brief points, without, you know, going into too much detail. What can you say to the DLD to improve the [DATA]? What can we do, quite simply, yeah?

OS

First of all, they have to hire [QUALIFIED] people who is entering that [?]. A bank cannot use the DLD valuation to lend against. It must get an [INDEP]endent valuation.

C

That's not for us, that's for the banks. It's for the banks and the Central Bank, actually. No, what do you want from us that you think would be more supportive? The reporting is fine, or either we do the proper report, as Doctor mentioned, or we stop doing it, but what's the other things, any other things? Youcef, no comments? Suggestions? Feedback?
The valuations provided for [INHERITVAL]... So, what would you like to know about them? So, you want the data?

Y

More supportive? Here's a suggestion. The valuations that are provided for [INHERITVAL] purposes to the courts, could they be disclosed in some way, shape or form? That may be one way of assisting buyers. Could they be disclosed to the [valuers]? If they could be disclosed, that would be one way to help [?].

C

Ah. So, it's [TSP] again. That's a good point. It's a good... We have to anonymise the data though.

OS

Humaid, usually, what's the best practices in [?]? Like let's say Singapore or Hong Kong, what exactly [do you do] when it comes to these kind of things?

Y

Can you not tell the view and the type, as part of the [DATA]. The view from the property and the type of property.The view as in sea-view, etc.?Yeah, like basically, sea-view [VIEW]

C

Well, you know we don't record that [DATA] We don't record it. Sometimes, when we do valuations, we do a site inspection and we have pictures. If, from the pictures, we can ascertain that there's a nice view or a lake, okay, or something, then we can... then it could be taken into account. But let's say it's Burj Khalifa, you're in the Burj Khalifa district and you're overlooking Npower, you know, not Burj Khalifa, you're looking Npower in the face, okay, the [LOCATION] is amazing but the [VIEW] is crap. But we don't have something on our [DBASE] that says "View – Npower, parking lot, Burj Khalifa, fountain, sub-station, toilet" I don't know. We don't have that.

Y

Because, if you don't have that, then you can't rely 100% on the data, which means, if someone challenges your valuation, you can't [put that back].

C

Yeah. This is why you need to go to [SITEVISIT] and see the property before you value it, and we do that.

Y

But I can't...I don't know which property you've given me evidence for. So, I'm looking on DLD, I see a property, but I don't know that's unit 503 in this tower [DATA]

C So, the comment would be to record any [SPECIAL FEATURES] [AMENITIES].

OS

I think what I was referring to is what DLD does in terms of "under-construction" properties, when the [PROJECT] is launched. We have...they have a [?] Engineer which goes to the site, depending on the [PROJECT] completion – it's for the [PROJECT] completion [MILESTONES], which is very important for the banks, right, and I think it's done very concisely and comprehensively, so there's a full [DATA] and [PROJECT] report. It's very easy – it's easier for that for building vis-à-vis if it's a villa [PROJECT] of 200 villas, so that's the... But for building, I think it's concise, it helps the banks and the valuators when we have to release [tranches].

C

So, we audit these things and we point out, and one of the main things we point out is the contractor working, is the work progressing [MILESTONES], is there material on site, how much work have they done – not the [QUALITY] of the work, but how much work has been physically done. For villas, it's a nightmare for us. But we provide, and it's online and it's free. Zainal from Mashreq, Marshreq Egypt, and he's the Head of Retail, in charge of that division, a very important person, and very interested to know about what you are doing for

valuation. I'll tell you a bit more about our focus group in a bit. We've also got Mr [Kabir] here, who is an old friend of mine – we dealt with him with previous properties that we had some small issues with. He's currently I think Chairman and CEO of [Sky] Developers, and they're developing a few properties in JVC and a very lovely building in Dubai. So, he's a banker and developer. ADCB is represented as well, so lots of people are asking for more [TSP], more [DATA], and then we touched briefly upon [VALBASE] competition between Land Department and some of the valuers. Not compete with the private sector. So, we licence you guys, and then you will go and do what you do. We will not provide valuations for residential property. But still, it's a given, but maybe we should look into that. And there was an issue of certificate versus report – if you see Land Department valuations, it's just a [VALCERT]. I argued that we don't need the [VALREPORT], if we continue to work as an internal valuer, so we will not report to Mashreq, we will not report to Noor or anything like that – we will purely report for ourselves, whether it's Dubai Municipality or any of the government agencies, they just want a number, certified by a process, and the process is very well [DOCUMENTED], And then we spoke about any advice that can be given to DLD on how to improve things, and again, the theme of [TSP]
A very challenging [CPLEX] [PROJECT]! So, it's a huge tower, with swimming pools on the balconies. So, you believe that... or you are marketing these properties at a premium of 30% above typical market rates, and when we go to Mr P, he's like, "Wait a minute, I'm not going to sign u on this." So, we need a [REPORTING], etc. To transfer the [INFO] and the knowledge, and the [RISK], because ultimately banks don't like it, so, to them, and again, when you're selling this property off-plan, it's probably not worth a lot of money, but when you start – and I remember the last time we went, he was putting the foundations in. They were really scary foundations! So, you know that this company is talking business, you know, and now, I think you're almost done with the structure and the concrete [MILESTONES]. So, again, the more you can see, the more confident you are, and as time progresses, [that] reduces for you guys the [RISK].

OS

It's basically the [developer] and the construction [RISK] when you're talking about the "under-construction" properties.

C

Valuation in general, what's the [PROCESS], because at some point, before the bank hands over the cash to buy a property for residential use, it has to be valued, and we're talking about the system for that. We're going to talk in a bit about the [STANDARDS], the Emirates Book or the [RED BOOK] – I'm sure you've all heard of the it, yeah, [RICS]? International valuation [STANDARDS], issued internationally by the [IVS]. So, anyway, so that's... so how do these banks assess the mortgages? It's the [LICENSED] and [QUALIFIED] and [REGULATED] valuers. So, we're talking about [CAPABILITIES], yeah? organisation's [CAPABILITIES] – is that organisation the valuers' company, valuation companies, or the banks?

F

I think the same as what everybody else has said: it's [transparency], it's having the [INFO], but a lot of it, as Richard said, it's based on what you know as a valuer, and the more assistance and help in transparency we can receive, the better it is for us.

C

Okay. So, [TSP] and [COMPETence]. What about best practices? I

AA

... since we are in a developing economy [EVOL] right now, as in the UAE, so I thought, instead of re-inventing the wheel, let's say what's the best practices or the best, you know, cities [that know] exactly what they are doing, why we [can get] similar, you know, practices actually.

C

Okay. There is – this is why I brought a lot of these books. I can answer this very quickly, and maybe K would know a little bit of this, with the work that we did in the previous years.

Basically, I was... I joined the Land Department in 2009, having valued zero properties in my life, okay, and it was very difficult because I had to regulate a profession, with giants, let's say, like JLL and Knight Frank and, you know, CBRE, etc. All these people, maybe they're not with us today, but these companies have done, for decades, this whole business of valuation, and it was up to this young man to regulate it and it was a bit of a nightmare. So, my solution was: look at international best practice. So, we started talking to these gentlemen... [?] As well was Head of Regulation at the time [as well] – [she] was tough, you know? So, anyway, [RICS], has a good... a long history, I'd say, and a successful history, writing valuation standards, mainly in the UK, and it's called the [REDBOOK]. A lot of banks will know the [RED BOOK] inside out. Obviously, it's a British [STD], but later adopted in a lot of the countries, and especially UAE, over time. So, you've got the [REDBOOK] with [RICS], so that was one of the first points of contact. I found it easy to work with the [RICS], for two reasons: they spoke English, and that was, you know, as a British institution with international reach, I mean, there is more than I think 100,000 [RICS] members worldwide, and more than half of them reside outside of the UK, so it's a huge number of people, and because English is the first language of that organisation, I found it easy to deal with, so that's number one; number two, they have an office in Dubai, and they've had permanent staff in Dubai for... since I started.

Another organisation which we started working with is [TEGOVA], and they publish the EVS, which is the European Valuation [STD]. [TEGOVA] was set up by [RICS] – I will not go into that, but it's modelled on the [RICS] system, but really focuses on valuation, but the [RICS] has a lot of other things. I think there's nine different pathways you can get chartered under. [TEGOVA] just focuses on valuation, and in a way, it acts as a [STD]-setter and as a lobby group at the EU. So, I'm not too interested on the lobbying side, but their [STD] are very good, and they had very thin standards, which I found very interesting in 2009, so it was easy for me, and after four years, they made this big thick book, so they keep changing. But, anyway, the idea is that they represent all the valuers in Europe, under the tegova umbrella, and they just do valuations. The thing with [TEGOVA] is that it provided me with an [INDEP]endent source of data, without any conflicts, because I wasn't comfortable going to valuers in Dubai because they would have an inherent [CONFLICT], so I would rather go to people outside or academia for that. Through [TEGOVA], I met people like Jeremy [Wood] and John [Hockey], who are also associated with... So, a second one is [TEGOVA], okay.

A third one, which is now the Big Brother, the mother of all ships, the boss, etc., is the [IVS]. Anyone disagree... or have I got something wrong, or if there is something which I am not up-to-date with? So, they... the [IVS] is the International Valuation Standards. So, they started with this huge book in 2007 and they streamlined it to this in 2011, and I think there's another one, one or two that have been published since, which I don't have, but International Valuation [STD] is a more international body. So, we started with [RICS], which is British, with international outreach, tegova, which is European, and we're actually... Dubai was the first non-European country to be admitted. We were competing with Turkey because Turkey is quasi-European, but we are completely non-European and they're like... this is a European group so... But we pay our fees on time so they like us, so that works out. [IVS] is purely international, International Valuation Standards – it's in the name. All I can say about them, just to finish this topic with is that the [IVS] used to focus on valuation in the most general of terms, yeah? So, it's not really written for real estate in mind, so it's very generic. So, even once we were [DISCUSS]ing valuing brands – how would you value the Coca Cola brand, rather than the Coca Cola business? So, this was very generic, and then this went a little bit in to real estate, and now the [RICS] and [IVS] are on the same level, and I believe all of the new [REDBOOK] are compliant.

K

Sorry to interrupt, but from what i've seen in the local market, [RICS] is what most people use. Is that correct?

C

Yes. But in the background, they are aligned with [IVS] now, but that's not very well-advertised in the market. But generally, banks want [RICS] valuations, correct?

P

Correct, [RICS] valuators actually, [when we have panel of] valuators, so they have to be [RICS]-accredited valuators.

C

Yeah, this is the Emirates Book, so we've done all of this research to write our own standards, the Emirates Book [STD], in Arabic and English. Because the terminology was very difficult, [we couldn't rely] on a legal translator, and it's copyrighted and everything. So, we've had this since 2010. The idea is that it summarises the main principles on which these international standards are working on, and this is, let's say, a phase one for UAE. That was the idea. It's only 30 pages or so. It's phase one. It's a document that we can use, and we mention in the laws actually. I don't know if you... someone had a copy of the laws. Emirates Book, which is our, let's say, local [STD], which relies heavily on this, update our Emirates Book to be more in line with the [IVS], or if the [PROJECT] to translate the [IVS] into Arabic is completed in a satisfactory way, we will just use [IVS]. That's the plan. I know that the Saudis have paid a lot of money to translate it, but I haven't seen the translation yet, and I think that's...

F

Just to add to what you were saying earlier about the [REDBOOK] and valuers who are registered as Chartered Surveyors, as part of the [RICS], you actually have to go through like an additional level. You have to be part of the Valuers' Registration Scheme.

F

Yeah, we have to pay a lot of money [laughing], and [we've got] courses here that we attend, and we also have to be registered and... There's a lot of things that we do so that we're up to the level of [COMPETence], [TRUST], to be at the appropriate levels.

C Without going into too much detail of that, but I think the [RICS] had to do that because they were under criticism, eh, because there was no distinction between MRICS and a registered valuer. You can be an RICS member focusing on antiques rather than property. So, they introduced an extra level of [CHECK]ing to do that. That's number one.

Number two, I think we were very slow to update our [STD]. So, the [RICS], as a [PROFESSIONAL] body and not hindered by government procedure, was able to do it quicker than us. In the future, I see the things merging into one, you know? If you're [REGISTERED] with us or you have the [RICS] badge, then one will take the place of the other.

K

So, actually, as developers, we do pricing. Valuers do valuations, right? No, we...I mean, this, you know, I mean, when you say pricing on a development, and especially... I mean, let's say the [Palm] development we launched in the market in 2013. It was very difficult because the market had gone through a very tumultuous phase and there was no real benchmarking that was available for the kind of product we were going to deliver, so I think we were, at that time, maybe 30% or 40% higher than the...let's say the market pricing, but we were delivering a product that had not been delivered on the Palm as well, and at that stage, it's a lot – when you set pricing like that, it's a lot about your credibility [CRED] and how you're able to actually convince the purchaser to enter into a transaction. We've actually been going through a lot of valuations because I think about...about 2.5 [million] of sales in that [PROJECT], and I think about 30% of the buyers are mortgage buyers, so there's [VALGAP] gap of up to 30% of two valuers on the same property, which I found very...I mean, I thought it was...to see a 30% difference of two valuers within one week, and both reputed valuers, on the same unit, which was interesting for our bankers and for us. But generally speaking, what we've...the way we've found the best way, because we have, you know, many similar units of [TRANS]actions happening, I think transaction price is the easiest way to get valuations done and then for valuers to feel comfortable. But on many occasions, because we sell a lot more of a lifestyle product, it's...I think it's challenging for valuers to take a view on what a person is prepared to pay for that [LIFESTYLE] experience, which is not simply, okay, this much area and that price per square foot. So, I think the challenge, you know, between the, let's say, 800 and 1200 square foot market, I think there'd be a lot less variation between valuers and there'd be some form of consistency - you have enough comps [COMPARISIONI] out there, you have enough benchmarking available [TRANS]; but when we go into the ultra-luxury segment, I think the challenges are much higher for valuers and therefore it's

[BRAND] ... But I guess, as an entrepreneur, that's where the opportunity lies because that's where the margin lies, so, for us, that makes sense. But for valuation, we struggle.

K

Absolutely, absolutely, and every six months-

So, there, we use the [RICS]. So, for example, for both our [PROJECT]s, our Palm as well as our Jumeirah Village [PROJECT], Deloitte has been conducting valuations every six months, because it's not only the valuation when you get the facility, it's the continued valuations [TRANS]actions, because, obviously, there are lots of provisions in common terms agreements with bank, where, if the value of the [PROJECT] drops below a certain level, more equity has to come in or it can become a default event [EQUITY]. So, those valuations have to keep coming in every six months. So, this property has been valued in the last four years, you know, at least eight times by... I mean, in the beginning, I think we used – we've used CBRE, we use valustrat, and then we use Deloitte for most of it, so we've had... But fortunately, for the land valuation, the [PROJECT] valuation, I didn't see a difference of more than 5-7% [VALACC]from any valuer, which is... and especially with such large numbers and... [Use a half or] a quarter percent difference in your [DCF] model and, you know, you can easily get a 5% difference in the... Sorry.

C

Just to recap, just to recap on that, just two things, very, very briefly, Professor Ali. First of all, it's very wrong to use the comparative method for Sky's properties because they've built something unlike anything else [LUXBRAND] .You've done something really crazy, really... it's crazy! They've done things which have never been done. It's like super-luxurious. It's very [RISK]y, I think, as a developer, but they managed to pull it off [CONF], so far.

K

So far, so good [laughing]! [SKEPT]

C

Yeah. So, when I go do – we mentioned, we talk a lot about comparative methods. I cannot compare it – to what, [?], you know? [UNIQUE]

If your product is of a high [QUALITY] nature it will maintain its value.

OS

[UNIQUE]

C

It's a [UNIQUE] [PROJECT], so you have to maybe look at [INCOME] yet because it's still being built, or maybe... what's the last method, the construction [COST] methodology. Okay? So, that's the first thing, so I cannot compare K properties to something else in the region – this would not do it justice. Developer works on pricing and cost, so all he has to do is make sure he sells the property for more than it cost him to build it, and

that's where the [genius is]. That's it. He doesn't care later about the valuations. During the building and the selling process, you are concerned with sales, so you want to generate enough cashflow to take him through the construction phase of the [PROJECT].

K

But, you know, this is fortunately changing because what we have begun to realise, and what I started to see in 2013, is, at the end of the day, more and more buyers are becoming mortgage buyers, so we have to create a product that eventually a bank will feel satisfied to lend to, otherwise, we don't get the [MORTGAGE]
There, I agree, 100%. I mean, that's why we've gone and focused on the very high-end segment [QUALITY]. I mean, look, Dubai, you know, Dubai sometimes, if I think of it, it's like an inverse pyramid, you know, you have... Yeah. So, these are actual pictures of the [PROJECT]. I mean, I was with [?] And he thought it was [a render]. I said, "No, it's an actual picture", so he's coming for lunch [laughing]. Yeah, but these are some of the hotel rooms... These have just gone on...

C

We audit this [PROJECT] and we've just signed it off, last week I think... ?
We gave it – we do a lot of [CHECK]ing, and we signed it off as completed, so 100% done. I know – I signed it.

K

Well, it is 100% done [CARTEL].

OS

I was saying that I would have loved to see [a few more] consumers here rather than seeing bankers, so I want to talk on behalf of some consumers, not as a banker. I'm a [landlord] who have applied for a loan recently. I bought a property a couple of months ago, and they [PREMIUM] it was, [?], without mentioning the developer, without mentioning the bank's name.
[OFF PLAN]?
No, it was almost, yeah, 70% [COMPLETED]
Off plan?
Yes, off plan-
So, when I went to do an equity release to take a loan against that property, I mean, after completion, yeah, [after] i've rented it, the variation between the property price and the valuation was significant.
When?
Recently.[PROJECT] which I did a year ago, today, it's like 20%- Completed.

C

So, you bought it 70% complete, yeah, and then, the [PROJECT] was finished... And then you rented it out.

OS

I have lost 30% of the... 20% of the... of the price. Now, my worry is what? My worry is there's a [CONFLICT] of interest on evaluators, because when I am sitting next to the developer, I will always make sure that, you know, the prices are [PREMIUM] finishing [first-class] and, you know, you do all this marketing, you know, how to put some [PREMIUM[on top of the... on top of the [PROJECT], so I can [sell with the good money], and then you will be happy with the valuator because he's pricing it in a way that you will... Then, when I go to a bank, who sends another evaluator, might be working with the same company because the evaluator can evaluate the developer and evaluate a bank. So, there's a [CONFLICT], because, at the end of the day, you want to protect the consumer here because you want to make sure that I'm buying at the right price, and when I go for lending, it has to be similar. A variation of 5%, I can understand. So, then, so then there's a third evaluator because sometimes I send my own evaluator, to try to, you know, [?] What's in the market here, [?]. They evaluate something even [?]. So, that worries me. So, that, if you can protect me, as an investor or as a...

C

We can and we have [to].

First of all, the price you pay is not related to the value, later, because you make an investment at a certain point of time, and the market can go up, down, or stay the same, okay? It's like you may buy shares [?] Going up, [?]. So, you buy property off-plan, there's a greater [RISK] of price fluctuation – any bank will confirm, okay? So the price can go up or down. That's point number one. So, you cannot compare the valuation on completion with the price you pay on [the day]. That is point number one. Point number two, my solution to the [CONFLICT[of interest is to abolish the system of [bank ?]. Once we have a constant and updated register of valuers [REGISTER], which the valuers will be examined [EXAMIN] on and registered on, and will be comparable in competence [PROFCOMP] to the [RICS] registered valuers, not [a smuggling] expert, okay – we will then abolish or remove, and [slowly] the banks will not care. They don't want the [pain]. They just want to [?]. And when, as we're mentioned, we're giving them the right data for the transparency and all of that stuff, then we've covered it all. But this would not happen in one or two years – it takes time.

OS

If you can... not allow developer, eh, not... banks – this [CONFLICT] has to stop.

... want to mitigate [?] Value the property [?], [?] So [you have] reduced my [RISK] here. That's what they do. Sorry,

[Laughter] [SKEPT][Talking at once] [SKEPT]

C

That's why we are doing it. That's why-

Guys, let's keep the [DISCUSS]ion professional, okay? [SKEPT] When you are buying as an investor, they are putting in their money and they want to de-risk it [RISK]. So, they have their own procedure and they have their own list of approved valuers [REGISTER] which they believe that manages their [RISK] in the best way. Now, when I don't have a residential valuation system and a list of registered valuers which is up-to-date and working

properly, how can I tell the banks don't do this or don't do that? Let me fix my own problems, and then offer them a solution. We don't have that yet. The law just was issued 16 months ago, 15 months ago.

[Talking at once – multiple conversations] [SKEPT]

OS

You know, when I went to the same – I walked into the developer and he had two builders there. I said, "How much are you selling?" It was exactly the same price [as he sold me] a year ago, and the evaluation [is seeing 50%] lower. So, who...? I mean, okay, I know it's a choice, you go and you have a choice to buy it [at a premium] or you leave it, but then, you know, there is a disconnect. How can the...these developers are so confident that the price of this property is different than...you know, it's higher than, you know-[SKEPT] [?]. It's there in the international market, same thing. So, for example, today, if I – I'm looking for a property, let's say, back in India, let's say. So, the developer price is set at a particular price. Let's say he's already sold 80% of his inventory. 20%, he has, right, and he will not go below a certain price because that's the developer's price which he doesn't want to sell below. In the market, so, I was getting a developer price of 12,000 per square feet, versus the market at 8,500. Same unit, same building, same [PROJECT]. So, this is what... So, it is a price which you have actually agreed with the other...with the seller of the property. That is what we've done with [this apartment].

F

If the developer sets the price there, the market moves there. Now, developer cannot forever say for that price, but For the lifestyle [QUALITY], people will pay that extra [PREMIUM].

OS

Yeah, people pay for experience, which, unfortunately – i'll tell you what I was struggling with. So, in this [PROJECT], we have 10 restaurants, three swimming pools, amazing kids' club, amazing beach. A valuer comes and he values the property, as [?], right? He's not putting in any additional value for the amenities [AMENITIES], to that extent. Whereas, in this market, [AMENITIES] is what people want to buy, and a building without [AMENITIES[doesn't work. So, what the customer is prepared to pay [WILLBUYER] and what the valuer is how the...the valuation methodology is probably set up, there is some kind of disconnect, and I think that disconnect increases on the high-end than let's say on the...you know, than on a usual building with a pool and a gym. So, you have a building, pool, gym, usual amenities, the variation will be lower. As your [AMENITIES] go up and as the variation [VAR] goes up, obviously the disconnect will be larger, and that's something we...you know, we have to...we have to struggle with, because the valuer is looking at the property as [is, where is]. Now, when we sold, we also sold with furniture, we also sold with bed-sheets, pillow-cases, I mean, you know, bed-sheets from Frette and pillows from [?], but that, of course, doesn't come in the valuation because [a lot of the] furniture is not valued by the valuer because that can all be removed. So, there are so many factors that come in, where there's a valuation difference from the price at which things are being sold.

OS

Do we find it easy to find…?

[Talking at once – laughter]

No, I mean, generally, if we talk across all the industry, [TALENT] is a challenge in UAE. I'm sure property is a part of it, yeah. But this market, to compare who – who can you attract [TALENT] from [within here]?

…professional indemnity.

Yes. So, I mean, look, i've worked through a lot of different consultants and advisors and I think, again, it boils down not necessarily to the firm but to people, but have I – I mean, you know, sometimes, you know, and they're all big brands, right, from Ernst & Young, Deloitte, Pricewaterhouse, and in different firms, you'll find different divisions, but it depends on the people. Now, the reason why I have, I mean, from the valuation side, i've worked a lot with Deloitte is because the people there are people who were definitely more competent, were pushing harder, were [CHALLENGE ASSUMPT], and actually, we reached better conclusions together, right? So, from that perspective, yes, but is it something that shows up in your office on the first meeting? No. It's a process. You go through it, and you meet different valuers, and you come to a point at which you say, you know what, even though he's [CHALLENGE ASSUMPT], and he's… let's say, you know, I mean, you know, I mean, I think the [DISCOUNT RATE] should never be more than 8 and he's signing off a valuation of 9.5. I respect that. I respect that difference and there is a reason for that difference. So, is it challenging? Yes. But is there a lack of [TALENT] in Dubai? I don't agree. I think there is an abundance of talent in Dubai. You've got to look a bit harder. And, in the last few years, i've seen, across the sectors, the [QUALITY] of people improving significantly in the city.

OS

So, you know, the problem is that – and I totally sympathise with all of you because valuation is not an exact science. I mean, this is a challenging thing. I mean, i've been in this business 12 years. I've sold, personally, over $8 billion of real estate. But do I know how to go and do a valuation? Have I made the wrong call? And this is me investing money, buying, selling, transacting, which valuers don't get to do. Have I made wrong calls? I've made many, many wrong calls [MISTAKES]. Will I continue to make wrong calls? I will continue to make many, many wrong calls. So, are we expecting that suddenly a valuer will come in and say, "You know what, that's what it's worth" and the market's going to pay that price? There is no way that that can happen. A valuation is a [RANGE], and it's based on a set of [ASSUMPTIONS] at the time [CUTOFF], and that's all it can do. So, in terms of – but the only thing, which I have had a recent experience with, which I'm not going to name, is, for example, there is a particular person at a well-respected valuation firm that has been sandbagging us, and I found out for some personal reasons, okay, where every valuation is 35% lower than two or three other firms on the same property, and I mean, to the extent where, actually, last Thursday, my Managing Director called me and said, "You know, go and talk to the CEO of the firm and take action." Now, if there was a way to address those reports and come to a place where the authorities would look into that, yes, that would be…I mean, that would be helpful. Is it an exact science and should we, as developers or buyers, expect valuers to give a perfect valuation of property? No, I don't think we can expect that. Yes, and a level of highly-[ETHICS] code of conduct. I think that is really where the concern comes in.

[Talking at once] [EMOT. AGREEMENT]

...have any...like bankers, [we're always being] questioned [?], and we actually we use our [?] The senior [managers]. I don't know if that's something, you know, that exists in real estate or evaluators, that, you know, if someone evaluates something, it's [signed by everyone], you know, even, you know, [?] Or whatever is the issue, and we really take them to the court or take them To [CHECK]

Other Speaker

Code of [ETHICS].

There is [VALGUIDE] for valuation, the guidelines on valuation, there cannot be a 30% [?], you know.

Fluctuation. It's not [ENFORCED]?

C

Let me just finish this, okay? The code of [ETHICS] has been [written]. It's seven-years-old, okay. It's not [ENFORCED]. Yes, it's not enforced, because the law has just been issued and the deadline on [?] Three months ago, so we still are putting the [detail] on the system.

OS

That's it. Once this is [ENFORCED], that's [it].

C

So, first of all, the code [ETHICS], which will [CHECK]your [CONFLICT] [?].

The second thing, when you talk about 20% less, it's not a chequing account – you cannot say money in and out and it balances. It's an opinion of the valuer, and as K mentioned, it will have to be – however, the [RANGE] has to be that

[Indexes are for] people who don't know how to value. But I will give you a more specific-

OS

...for example, the Land Department [INDEX] or, let's say, international index, bank index. There has to be some index- No, no, I think it's really important because, if you look at some of the mature markets, you do get...the more [INFO] you have, the more [TSP] the market becomes. You have- [In my view], it comes down to [COMPETence], and competence comes from a number of things. It's [EXPERIENCE] within the market, within the specific asset class, and the way to do that is, like you would do for any other professional in the private sector, whether it be a doctor or a lawyer: you need to [CHECK] the valuer's [CREDENTIALS]. So, if, for example, here, [my colleagues] in this conference need a valuation on Palm Jumeirah, [valuation on] Palm Jumeirah, ask the valuer, "Please demonstrate your [COMPETence] within Palm Jumeirah specifically." If he's done two valuations in the past five years that might well be a good indication. If he's done work for the master planner and advised the master planner and then also did work for potential purchasers and other banks, he's probably quite [COMPETent]. And the key thing on this whole competency argument is that they have the [INFO]. The information within the market isn't necessarily available or [TSP], and that's...I think that's what I would say, and that's the key thing. I think when we get a lot of criticisms, particularly from our customers, em,

and I think I'm very fortunate to say that we don't have many criticisms from our customers, but a lot of it is that: they don't fully understand the service that they're purchasing.

OF

No, but that's why we're all registered with the [RICS]. That's why we're all going through registration processes, so that we have the ability to continue doing what we do here. Like you mentioned earlier, we don't spend three or four years at university, do an extra two years of training, to not get to [?]. It's like being a doctor – you get to be a doctor to help people. We get to being valuers to help people and we go through the processes. See, I [do have an] answer for that, very brief answer. See, the thing is, when we are [?] A valuer, for example, a bank is [buying in] a valuer, we also look at the [CREDENTIALS] of the valuer before [buying in the valuer]. We look at how long the valuer has been in the market. Obviously, he has to be [CERTIFIED] or she has to be certified to [evaluate], to evaluate the company, and the people working for the company, the valuers [actually], and how... are they associated with other financial institutions as well? Are they new in the market? Would we want a new evaluator to come on board? Probably banks will hesitate because I don't – again, it comes to – I don't think it comes to the competency. [COMPETency] [is always there] because, as she rightly said, [CERTIFIED], you have a certificate, there's the Code of [ETHICS], etc., everything, you know what exactly to do, what kind of methodology, plus, yes, experience counts, which is another piece which I'm basically addressing now. So, it all depends. Would we actually on-board a new valuer who doesn't have any experience in the market but has a certificate? No, I don't think we would.

And they don't also have to be [RICS]. I am a member of the [RICS], but there is a legal framework in place here and a registration process through RERA. If they are RERA-qualified and they follow the law and they're registered, then they've met those obligations, and then I think the next stage that we're discussing is: are they [COMPETent] and are they sufficiently experienced? So, again, I wouldn't stress more on competences. Competences will come with... whether the person is certified and experienced or not, number one. I don't think valuators or valuation companies hire people and send them in to the market straightaway, just after hiring them, because if they don't have any [EXPERIENCE], they won't of course also. So yeah, I mean, [that's it, we won't]. None of the organisations [won't]. Like if someone... if there's a new [company], probably it will be very difficult for the company to actually get into that market.

I think the lessons have been learnt. We've all got, eh, from the consumer, starting from the consumer, from the financial institutions, across the board, yeah, when... when the recession hit and everything was southwards, yeah? So, again, as I mentioned earlier, for example, for banks or institutions, I would say, at that point in time, when I mentioned that banks were lending at 90%, 95% of the value of the property, which was... which shouldn't be the case, okay, those pieces have been regulated now, yeah, so that's one of the lessons learnt, wherein a lot of [REGULATIONS] have come in to protect the consumer, to protect the developer, to protect the investor, to protect the bank, in terms of when you're looking at [PROJECT]s [MKT EVOLUTON]. So, today, let's say if a private developer wants to come and build a [PROJECT], the company has to actually secure the land, 100%. Before, this was not the case, earlier. You know, he could have paid in instalments earlier. Now, there's a guarantee which the Dubai Land Department asks for from the developer who is building that

[PROJECT], right? So, all those measures – and then obviously you have the [ESCROW] law and the [ESCROW] account, etc., which has come into place, and milestones are being measured and monitored by the [REGULATORY AUTHORITY], etc. So, all these are lessons which have been learnt [EVOL]

OS

There have been major improvements in the Dubai market [EVOL]. Just the implementation of Law 13 in particular, in my view, has had a [real] impact. Then, also, the addition, the [RERA] regulations that have come in as a result of it, especially in regard to the [ESCROW] account, em… The [ESCROW] account really was a major issue and... So, that has really been cleaned up with [RERA]. And I think, to a large degree that has really dealt with a lot of the issues that we face in regard to failed [PROJECTs]. After completion of the [PROJECT]s, we have some of the issues around [SERVICE CHARGES] that came about, [?]. There has been the Residents' Association Regulation that's come into place, which has really helped owners understand what the service charges are, and I think that's [REGULATED] by [RERA] really quite well. They're definitely quite open [TSP] in the way they calculate it and communicate it with [strata] owners within the residential sector.

The next part of the question, inflated valuations, you know, I think that comes down to some of our [DISCUSS]ions previously. You know, there are some valuers which are more optimistic than others, but I think it's generally in line with other international locations, in line with other cities that I'm aware of, even in the dual markets, even in the UK. I think there are some firms that generally have a more optimistic view of the market. They are still within their regulatory requirements. They still conduct the valuation in line with all the legal and other requirements that occur. So, em, yeah [SEKPT]

Well, so, one point – no, no problem. I think the first point to mention is, we don't know the reasoning or the rationale why he was asking for a 10% increase.

Well, no. Well, what I would say is that valuations are an opinion based on objectivity, and so any valuer doing a valuation will have to rely upon [EVIDENCE] and provide a clear line of logic, a rationale to arrive at his opinion. Now, if the developer felt that the valuation was 10% below what, in his view, he could achieve in the market, then I think its reasonable and that can be raised with the valuer, and the valuer will have to, in writing, respond to him. And the best way to deal with that is really go through the evidence that is being used for the valuation. Sometimes, what exactly [?] Value, the developer, when they say there is a... there say basically there is a demand on their particular [PROJECT], then he will start like, you know, raising the prices. This situation applies in the UEA and particularly in Dubai. Why? Because Dubai is [INDEP]endent at this stage. So, today, for example, if you build a tower in a place which is far away from the city, there is no services [AMENITY], it has a different price, and after a couple of years, again, the same [price] is going to be completely different [there] because there is no services [that came up], and now this particular spot [LOCALES], it became more [DEMAND]. Today, something is priced; tomorrow, it's a completely different price [CYCLES]. But, as you rightly said, he was an in-house valuer. It was not an [INDEP]endent valuation company giving that evaluation, right?

C

I just want to summarise really. The way forward is to have a vigorous code of [ETHICS] and a [REGISTER] of valuers, which is rigorously tested and [COMPETency] based, and the [ENFORCEMENT] has to be strict. I mean, [?] Is going a good job. Once you have that, the [TRUST] I think will... will definitely increase.

OS

I think i've already answered this question before. When we're looking at [employing an evaluator] or a company, we look at, eh, again, you know, the [EXPERIENCE] of the company within the local market where the company is actually engaging with us, right, so that is very important. So, you look at how old is the company, what kind of experience they have in terms of valuations, are they [REGISTERED] with other institutions over here, have they conducted or are they conducted, how many evaluations are they conducting, etc. So, it is a rigorous process before and, you know, you engage with the valuer and the valuer engages with you, and then only we decide [to bring to the panel] valuer. So, that's...

Why do we have panels? Because, in order to, eh, in order to avoid any [CONFLICT] of interest in terms of... so, for example, [in all affairs]. As I said earlier, what institutions do, they have about, you know, depending on their business, in terms of volume of business, they will have a panel of about four to five or six to seven evaluators or valuation companies – when I say [valuers, companies]. And so that, you know, there is... so there is no one specific evaluator where all the business is going through that evaluator, yeah, so that we come to know about what kind of variations are there, what kind of... because the [ETHOD] and [CERT] are all the same, in terms of you're looking at comparable [VALMETH], but it's just that we need to be reasonable [as well], right, in line with... So, we have seven instead of one, okay, and it goes on a round-robin basis.

C

Can I summarise that in two points? you have a [PANEL], [that's you], the first point, you have the panel, it's to distance yourself from the number-setting process. So, you have to give three million of your bank cash. You don't want to decide on that. You want a third party doing this. So you want to distance yourself from the decision – that's the first thing [INDEP]endent. And the second thing – and obviously, you'd prefer someone [QUALIFIED], chartered, experienced, to do it. You're admitting that this is outside of your scope, so you want an expert opinion. That's number one.

OS

And in line with the [REGULATOR].

C

Yes, of course. I mean, as a bank, you're full of regulations [laughing] [SKEPT], you know, but maybe Central Bank, not... not...

So, naturally, you would be like, okay, F'S valuations are good, but she's too slow, you know, so I'm going to go with Y. They're both M[RICS], yeah? [?], you're not okay? Y is very quiet now. But you see the point? So, okay, they are both qualified, [CHARTERED], [EXPERIENCE] people, fantastic, but as a business, you find dealing with one company easier than another.

Absolutely, because we have service level agreement with them as well. So, if we see an evaluator who is actually breaching service level agreements continuously, we will take the evaluator off the panel and get someone else of course. And the other thing to summarise was transparency.

OS

I have an agreement, I have a panel, I have... and in my opinion, you have to do panels because we've not had regulations. If we [REGULATE] the market effectively, they [are fast]. You know, you just go to the website, you find there is the valuator and you'll go [?].

...review. But since there is a proper policy is there, and the [REGULATIONS] will be [communicated]. Because this valuation thing is just for the time when we are doing it, which year, which month we are doing it.

But I would still say that, obviously, the bank, again, or the institution again, even if they're in panel [REGISTRATION] valuators, let's say, a panel of [50] valuators, for example, [saying that] these are the [registered we go in], so, the bank... and other organisation has the right to choose the evaluator amongst those 50. And, you know, the primary things to choose would be experience of the evaluator in the market over here, and then consistency of evaluations, and the time taken, etc.

[?] Institutions on board, as I said, when you talk about international standards, right, all these certifications which you spoke about, the [RICS] and the other ones, all those [CERTIFICATIONS] are looked at by the bank or the institution before you on-board the valuator. So, it takes care of this point as well when you come to those international [STD]

practices as well. So, it's based on on-boarding the institutions [INSTIT], and then we see that they are applying them [this time]. I think there's a difference between recognising the [STD] and referring to it. Yeah, what the bank will do is that you will want your valuer, when you hire JLL and Knight Frank, you want them to be using the standards and to demonstrate, but you will not personally make sure that this valuation is using that [STD], because if you do that, then what's the point of hiring them? Yeah?

OS

K was getting Deloitte. If I had to [CHECK] work, why would I hire them? I do it myself.

Some of the areas can be purchased only by [?] Locals. Some of the areas [?]. They [have] variation. It's not like international [one]. Here, the [laws] are different.

I think even though because of UAE is going through that development as well, so I don't know, how does the international [STD] apply in these kind of [PROJECT]s, where, in UAE, as I said, like one particular area is worth this much, after a couple of, you know...

F

I don't think [they should vary] at all. If you're going to do it, you've got to [stay] the same level as – the [RICS] is a global recognised brand, to go there. They all have a certain level of [?].

OS

Exactly. And I think you're going to give [CONFIDENCE] on the foreign investor as well. If we have a different, then it's going to be perceived differently for the international investor, which [?] To come in. You know, you have to create similar to the international [STD] where we don't want to...

OS

I agree with what's been said. It's... it's a theoretical [STD] which all parties [?], and I think that the UAE should be [a part of it]. There is no reason why those standards should differ. [?] Any way, in any country globally, with the exception of laws, regulations, which need to [be upheld]. What I would add to that is that the English model is a model of self-regulation within the private sector. Other models are... other countries use statutory models. Now, I think, in the past, within the UAE, I think that the Municipality and the Land Department have [looked to] the private sector to [REGULATE] themselves, and that has caused some issues, and I think, in the UK and in the US, there have been numerous issues around self-regulation, and I think academia has really caught up with some of those issues. So, there are I think dangers that the UAE and the Middle Eastern governance need to [chart] quite carefully. I think the steps that i've seen through our good colleagues here at the DLD are very good in steering towards, yes. Now, further to that, if you'll allow me, what I would add is that, within this region, we have had... we're really quite late in the globalisation game, and Dubai has done fantastically in really pushing ahead through innovation and economic development [EVOL], and I think, in the past at least, as an Arab, we have looked towards Europe as being the best [STD] and being at the cutting edge of [TECHNOLOGY] and innovation, but what I think we have here in Dubai, and in the wider regions, is an opportunity to really leapfrog a lot of the step-by-step processes that have gone... that have occurred within Europe and the Western world through industrialisation, through to an established service sector. If I can use, just to summarise – I'm now talking a lot, but I will conclude with this example – if you look at the telecommunications sector, there was a process where you needed to have a cable, a wire, from one phone to another phone. After that, there was... that would be on a post, and it would go throughout the country, through a network. After that, there was... Sky which used satellites, and then, further to that, you have internet. I think a lot of us are familiar with Whatsapp and these other services that use the internet, with voice over... VOI, voice over internet. So, I think what we've seen within Asian countries, [TECHNOLOGY], is this leapfrog, without having to put this basic infrastructure in the ground or maybe even satellite communication for telephonics at least. We can actually leapfrog directly to fibre optics or other wifi internet services. That's what I would say would apply with these other advisory sectors.

OS

I mean, by culture, we do have [?]. It really has a huge impact on valuation and, eh, [just] reflect the status. [??] Not necessarily, but what exactly I feel that, for example, certain family, if a number of... you know, a member of the family is [big], he'll prefer having a bigger, let's say, living room. So, these kind of things, it might decide on the price that he wants to pay, yeah, so he said, no, I would rather... I would prefer this particular property because I think that the living room is enough big where I have sometimes – I'm more social person, I invite more people, so I want something which is bigger than the usual [QUALITY]. Yes, this specification, it might vary from individual, from one person to another, yeah. He might pay more [PREMIUM] on that

particular villa, let's say, because he has a bigger, you know... These things, it might impact, but more than this, I'm not sure.

I do agree with you that it's a market factor. It's a market characteristic, to be specific. It has no relationship, I believe, to value. Where I think culture may have an impact on value, specifically the Arabic culture, is that, historically, we have had a preference for physical assets, whether that be gold historically or real estate in this case or land, and so, as a result, what you see is people far more willing to invest in property, bricks and mortar, for an [INCOME] stream, than maybe the stock market, which we see in [?] Markets. So, again, it's a [MARKET] characteristic and not really a characteristic of valuation or standards.

F

I'm just trying to think if there's anything else. I wouldn't have said that the culture should impact it at all because each different country has its own culture. There are different things in [an Arab home] that might mean that they like to have smaller bedrooms or they want... In France, they have, em, you know, a larger garden or something. But, again, it sort of more goes back to... is that really a point of...? Should it impact the valuation? Yes, somebody may pay a [PREMIUM] for it, but then that's... that individual person.

OS

Can I also add to that, that within Arabic culture, we have a very long-established tradition of [?], yeah, a pricer or a valuer, among the scholastic class, and this goes far before the 17th Century when the [RICS] was established, and the main purpose of that was to price assets, largely for [INHERITVAL] purposes. Unfortunately, since the Renaissance period, we have not managed to continue that education, but it is something which I think is well engrained academically within the Middle East.

C should be international standards [IVS]– that's why we've been members with them from day one, but it should be a phased approach to implement it, in line with culture. So, we should use international [STD], there should be no differentiation,– we should just adopt [IVS], full-stop. But the Emirates Book is a way to adapt, eh, to the local market and get them slowly to the level that [IVS] [will take you].

7.3: FGM PowerPoint presentation

APPENDIX 7.2 TRANSCRIPT ANALYSIS INDUCTIVELY GENERATED CODES WITH EXPLANATION [AUTHOR 2017]

Code	Explanation
OUTPUT	Reasonable valuation results
PREMIUM	Increase in price paid for quality property
INFO	Information about property transactions or quality
DBASE	Land information system spatial or transaction database
INTEGRITY	Ethical and professional standards are considered more important than personal gain
DATA	Recorded facts relating to property quality or transactions
TRANS	Transactions – buying or selling of property
TSP	Transparency – all parties understand and trust data sources
OUTLIERS	Properties selling at well above normal prices – not representative
TECH	Technology
INDEX	Property price index
EVOL*	Evolution of markets as standards, professionalism and oversight improves
LOCATION	Different geographical sub-markets
RERA	Real Estate Regulatory Agency
REDIN	Provider of property data services
MILESTONE	Achievement of significant project outcome
EXPERIENCE	Professional property experience
COMPET	Competency
PROJECT	Project
CPLEX	Complex
RISK	Risk (mathematical indication of potential damage)
FIRESALE	Sale conducted to secure quick sale
QUALITY**	Building or locales at or above acceptable standard of construction, finish or amenity
BUBBLE	Unsustainable inflation in prices, not driven by fundamentals
DISCUSS	Deliberation (debate)
UNIQUE	Individual project with different characteristics to others
SKEPT	Speech tone or remarks which suggest stakeholders are unconvinced
CHECK	Valuation or other administrative work is verified by outsiders
DEEDS	Legal title document
TRUST	Trust in process or system outputs (valuations)
ARMSLENGTH	Not a discounted sale to a connected person but normal commercial sale
INDEP	Independent
CONFLICT	Conflict of interests e.g. between providers of finance and valuers
CERTIFIED	Valuers who is member of RICS
CREDENTIALS	Certificates, indicating capabilities
ETHICS	Code of conduct
VALCERT	Valuation certificate

STD	Valuation standards
VALBASE	Valuation basis or purpose and assumption behind a valuation
VALMETH	One of five valuation methods
COMPARISON	Comparison asset sales
MKTVAL	Market valuation
FAIRVAL	Fair value
INHERITVAL	Inheritance value
VALREPORT	Valuation report
VALCERT	Valuation certificate
LTV	Loan to value ratio
INCOME	Income valuation method
DCF	Discounted cash flow
PROFITS	Profit valuation method
COST	Depreciated replacement cost valuation
REDBOOK	RICS guidance book
IVS	International Valuation Standards
RICS	Royal Institute of Chartered Surveyors
MORTGAGE	Loan provided by bank or building society, secured on property
CUTOFF	Date of valuation
MISTAKES	Errors
RANGE	Range of data
CREDIT	Valuation influenced by owners credit worthiness (assumption of going concern)
ASSUPTIONS	Underlying model basis